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IN THIS ISSUE

Chocolate Production by the Unit System presented by Robert Whymper . . . Mr. Hutchinson finishes his Series on Air Conditioning and Refrigeration . . . Sugar: In which we make some simple tests, by A. B. Kennedy . . . Mr. Jed Fiske discusses the sugar beet industry . . . and other current subjects.

The MANUFACTURING CONFECTIONER

Step Through This Door

With Us on a Tour of Inspection

IF you cannot actually visit the MM&R headquarters in New York, let us plan an imaginary tour of inspection so you may become better acquainted with our personnel and equipment as well as our products.

First, we'll go through the five fully equipped, modern laboratories. One is devoted entirely to analytical work. Here skilled chemists anaylze and test MM&R products for their purity while others are constantly trying to improve, if possible, these products.

Another laboratory is devoted to manufacturing. Another specializes in perfume oils only. Then there is the flavor-room, and here the confectioner would be particularly impressed. Able technicians apply their skill to the production of the finest flavors. This is a reassurance of the quality claims made for MM&R flavors. The last laboratory we visit is devoted to the dispensing of essential oils which, incidentally have a growing following in the candy trade.

From the laboratories we next pass through the packing and shipping rooms. A glance at some of the shipping marks would reveal shipments—many candy manufacturers' orders among them—destined for all parts of the country and to most foreign countries as well.

In visiting the executive offices you would be told that correspondence is carried on in five different languages with over 8,000 customers in all parts of the world.

There are other interesting facts you would learn. For instance, there are 3,400 different MM&R products exclusive of manifold sizes. There is a sales organization of 17 men. It is also an interesting fact that Magnus, Mabee & Reynard, Inc., are doing a larger volume of business now in one month than they did in any of the first ten years following their inception in 1895.

MAGNUS, MABEE & REYNARD, INC.

32 Cliff Street
New York, N.Y.

408 W. Grand Avenue
Chicago, Ill.

MOHAWK OIL PEPPERMINT
CITRUS OIL—LEMON, ORANGE and LIME—MM&R
IMITATION MAPLE CONCENTRATE—MM&R

HARD CANDY FLAVORS—MM&R
ESSENTIAL OILS—MM&R
ROOT BEER FLAVOR—MM&R

MM&R RUM and BUTTER FLAVOR—and Many Others

The Manufacturing Confectioner

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D&O ESTABLISHED IN 1798

ESSENTIAL OILS and Kindred Products

Prepare now for

BETTER HARD CANDIES

for the approaching season

◆

Do not be satisfied with "Good Enough" flavors when you can buy our greatly improved 1932 Types at the present low prices.

Send us an order for a trial lot of any one flavor or ask us for samples of hard candy flavored with our fruitals.

WE SUPPLY ALL FLAVORS

◆

Have you tried our tenfold Orange and Lemon Oils? Fruity — Eversweet — Powerful for Hard and Soft Candies and Cream Centers.

Consult Us for Any Desired Information

DODGE AND OLCOTT COMPANY

180 Varick Street New York City

"The integrity of the house is reflected in the quality of its products." Copyright 1930

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The Manufacturing Confectioner's Approved Advertising of

Confectioners' Machinery and Supplies

and Miscellaneous Advertising Directed to Manufacturing Confectioners

POLICY: THE MANUFACTURING CONFECTIONER *is essentially a manufacturers' publication and therefore is a logical advertising medium only for confectioners' supplies and equipment. The advertising pages of* THE MANUFACTURING CONFECTIONER *are open only for messages regarding reputable products or propositions of which the manufacturers of confectionery and chocolate are logical buyers.*

This policy EXCLUDES advertising directed to the distributors of confectionery, the soda fountain and ice cream trade. The advertisements in THE MANUFACTURING CONFECTIONER *are presented herewith with our recommendation. The machinery equipment and supplies advertised in this magazine, to the best of our knowledge, possess merit worthy of your careful consideration.*

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ESSENTIAL OILS

for

CONFECTIONERS

OIL ANISE OIL LEMON
OIL ORANGE
OIL CASSIA
OIL PEPPERMINT
OIL LIMES DISTILLED
OIL LIMES EXPRESSED

Highest Quality **Reasonably Priced**

Ask Us for Samples

UNGERER & CO.

13-15 West 20th Street
NEW YORK

Smoother! Creamier!

VELVETY texture . . . . . delicious flavor, unvarying quality! *Do the chocolate coatings of your Package Line possess these three essentials of success?*

It's the coating that counts . . . as your customers can tell you. Today, the candy-buying public KNOWS Chocolate and is quick to notice any let-down in quality.

The way to be certain of quality coatings is to use

MERCKENS FONDANT PROCESS CHOCOLATE

. . . the product of a house universally recognized for superior quality.

Manufactured by a special process from the finest materials—*Merckens Quality Chocolate Coatings* will contribute much to the reputation of your candies. Many of America's finest package chocolates demonstrate this fact.

FOR EVERY NEED

Wherever a high quality Vanilla Coating is desired, we recommend:

RICHMOND VANILLA — BONITA VANILLA
BOURBON VANILLA — YUCATAN VANILLA

Milk Coatings of outstanding values are:

GUERNSEY MILK — GENEVA MILK
DELAWARE MILK

Write today for samples. No obligation.

MERCKENS QUALITY CHOCOLATE COATINGS

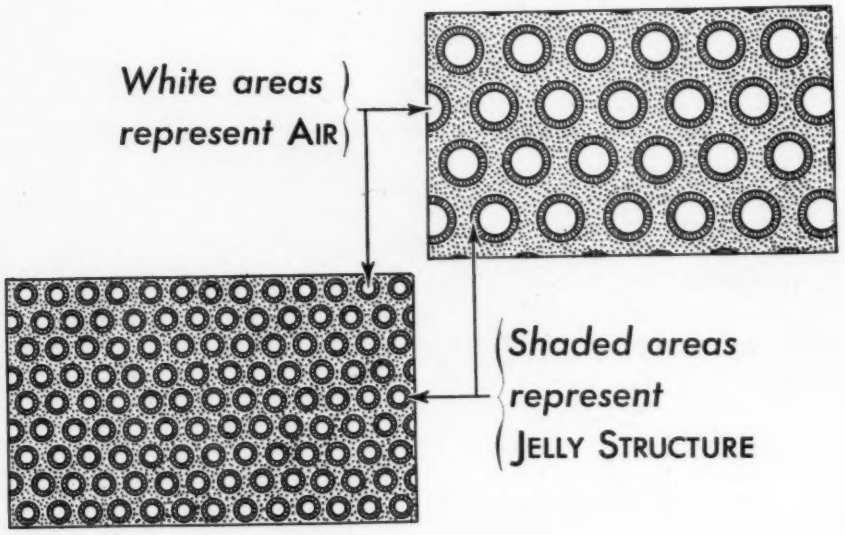
Merckens Chocolate Company, Inc.
BUFFALO, N. Y.

BRANCHES

NEW YORK—25 W. Broadway. BOSTON—131 N. State St. LOS ANGELES—412 W. Sixth St.
CHICAGO—Handler & Merckens, Inc., 180 West Washington Street

MARSHMALLOW TEXTURE

depends on air-bubble size



Which texture do you want in YOUR marshmallow?

The reduction of viscosity which Cerelose effects in the marshmallow batch results in a more thorough breaking up of the air that is whipped into it. This uniform dispersion of very fine air bubbles makes for superior texture and eating quality.

What is more, this superior quality *lasts*. Marshmallows made with Cerelose (in quantities up to 55% of the total sugars) have a longer shelf life because Cerelose exercises a definite restraining influence on the tendency of its companion sugar to grain out.

A number of the largest marshmallow manufacturers in the country use Cerelose. Our facilities and services are at your disposal for determining the best way to use it in your own product.

CERELOSE

produces smaller air bubbles in marshmallow

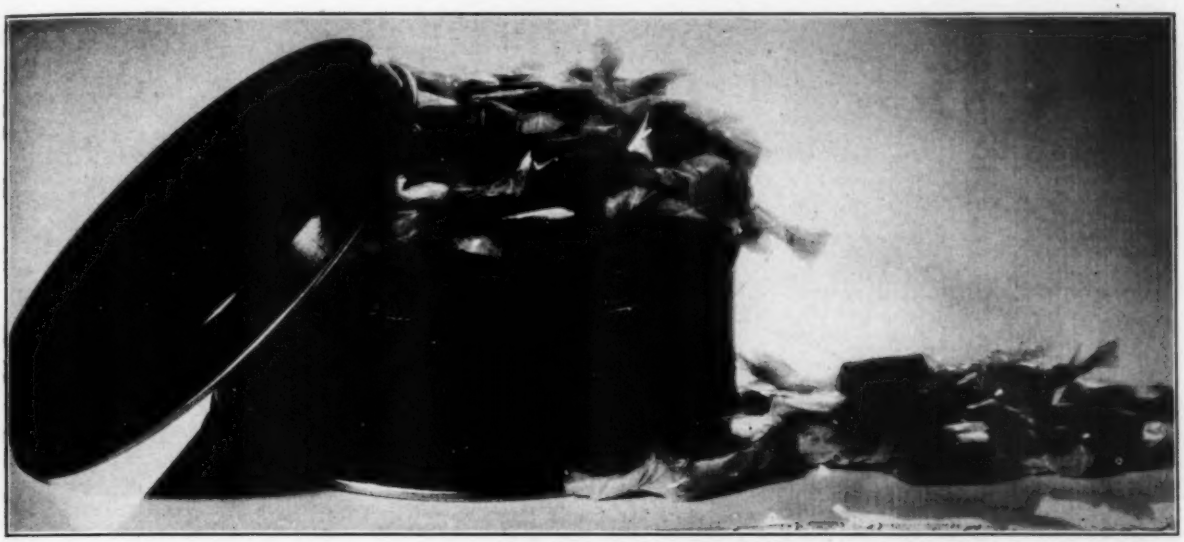
SALES SERVICE DEPARTMENT

CORN PRODUCTS REFINING COMPANY

17 BATTERY PLACE **NEW YORK, N. Y.**

Rum and Butter Flavor

TO GIVE YOUR TOFFEES AN ENGLISH TANG



FRITZBRO RUM & BUTTER FLAVOR supplies conveniently and economically to the rich caramel-like toffee base the appetizing flavor combination of Butter and Rum which has made these "chewy" pieces so popular at home and abroad.

The flavor finds useful application in other candy types, such as hard candy, salt water taffey, kisses, fudge and nougat.

Samples and full information on request.

FRITZSCHE BROTHERS, INC.

A FLAVOR FOR EVERY PURPOSE

FRITZSCHE BROTHERS of CANADA, Ltd.
77-79 Jarvis St., Toronto

78-84 BEEKMAN ST.
NEW YORK

118 WEST OHIO ST.
CHICAGO

ARE YOU ALWAYS SURE what coating is best for each center?

It's our business to know

DO you know the best coating for a peppermint cream center, a fruit flavored cream fondant, a butter cream, whipped cream drop, or coconut cream fondant? Surely you wouldn't use the same coating for all.

The question of the best coating for each type of center is most important. It is the sort of question we are often asked, and typical of the reliance placed on Baker Technical Service ($\frac{BTS}{150}$) by large and small confectioners.

Most of the chocolate problems of the trade come to us eventually. They are handled by $\frac{BTS}{150}$ individually for it is the business of this service to understand confectioners' problems, to keep abreast of taste trends and new developments, to help create new ideas and pieces, and to advise on costs, coverage, yield, etc. Such experience means, among other things, the ability to manufacture chocolate liquors and coatings to meet all requirements.

For instance, MYNOT and BRUNSWICK are two distinct Bitter Sweet developments. MYNOT is a very dark, full-flavored Bitter Sweet for thin to medium-thin enrober dipping of quality pieces. BRUNSWICK is lighter in color, of mild flavor and full aroma, with excellent stringing and decorating properties—a Bitter Sweet designed for enrober dipping above medium average.

The proper selection of Bitter Sweet coatings depends on many factors. We will be glad to send you a sample of the coating best suited to any piece you are making or planning to produce. Do not hesitate to use Baker Technical Service freely.

BTS 150

WALTER BAKER & CO., INC.

DORCHESTER, MASS. • CHICAGO: 208 W. WASHINGTON ST. • MONTREAL, CANADA • PACIFIC COAST: MILLIARD & SCHMIEDELL

And Then He Got Out of the Rut of Tradition

TODAY no man stands alone. That's as true of the flavor user as it is of any other individual. Cooperation is the watchword. Each specialist brings whatever knowledge he has, to bear on the problem as a whole. In that way a real solution is worked out. There is no groping in the dark. No one-sided recommendations that overlook a part of the problem. No old-fashioned methods that lead to a maze of costly confusion.

The alert manufacturer realizes that today flavors can no longer be fitted to products in haphazard fashion. He's gotten out of the rut of tradition; discarded outworn theories and "guess" methods. He submits his flavor problems to those best qualified to arrive at an intelligent solution. He knows that his products are no better than their flavors, and that the only way to determine the *correct* flavors is to let experts with the necessary experience, ability and facilities study his formulas. In that way he assures maximum flavor appeal and sustained popularity for his products at the lowest possible cost.

F & J Scientific Flavor Service Gives You Quality, Plus Adaptability

For nearly a half century the house of Foote & Jenks has been assisting progressive flavor users in determining the correct flavors to fit their individual needs. The only tradition with this organization is the scientific tradition. Each problem is studied with scientific exactness — all the facts are impartially weighed and carefully correlated, so that the conclusions arrived at are scientifically correct. Submit your problem to us with complete confidence. Our recommendations are made without charge and entail no obligation.

FOOTE & JENKS
INCORPORATED

Flavor Consultants and Manufacturers since 1884

JACKSON, MICHIGAN U.S.A.

• L A S T •

All Rna

PARK & T

541 W. 43rd Street . . .

CANDY AND CHOLAT
AND EQUIPMENT SA

UNION Rebuilt Candy Machinery

FOR SALE

CHOCOLATE DEPARTMENT

2—24" latest type, National Equipment Enrobers, motor driven, anti-tailers, feeding and delivery systems, bottoming attachments and detailers.
5—2000 lb. capacity National Chocolate Melters.
3—1000 lb. capacity National Chocolate Kettles.
2—500 lb. capacity National Chocloate Kettles.
2—300 lb. capacity National Chocolate Kettles.
1—Walters Basket Machine.
4—2-pot Chocolate Dipping Tables (marble top).
1—Forgrove Foil Wrapping Machines, with motors.
4—Smith Scales.
3—Motor Driven Conveyors for packaging goods.
3—Motor Driven Conveyors for transfering centers from moulding department to Enrobers.
1—Weightograph Machine with conveyor. Factory Stools and Packing Tables.

CARAMEL AND NOUGAT MACHINERY

1—50 gal. double action, Mixing, three speed tilting jacketed kettle.
3—50 gal. single action, Mixing, tilting jacketed kettles.
1—Caramel Cutter and Wrapper, 13/16" x 13/16" x 3/8" to 3/4".
3—White Caramel Cutters.
1—Mills Two Way Automatic Caramel Cutter.
2—Mills Reversible Sizing Machines.
1—National Equipment Automatic Nougat Cutter.
1—Racine Nougat Cutter.

MOULDING MACHINERY

1—Steel Mogul Machines, fully automatic.
5—Steel Mogul Pumps, 10 to 80 outlets.
1—Wood Mogul, Type A.
6—Wood Mogul Pumps, 10 to 80 outlets.
1—Complete Carrier Portable Hot Room.
5,000 standard starch trays with starch, size 14½" x 32", outside measurements.
70—Plaster and Aluminum mould boards.
2—Merrow Cut Roll Machines.
1—Werner Two Color Combination Depositor and Automatic Printer.
2—Springfield No. 2 Depositors, motor driven.
1—Racine Depositor, motor driven.
1—Springfield Simplex Starch Buck, with motor.
2—Hand Printers.
6—Colseth Starch Board Trucks.
2—Gyrator Sifters.

CREAM DEPARTMENT

1—Hohberger Cream Cooler and Beater, motor driven with Kettles, daily capacity, approximately 18,000 lbs.
1—Werner 600 lb. Syrup Cooler with two cylinder Cream Beaters, Kettle and Pump.
2—7 ft. Ball Cream Beaters.
3—60 gal. Baum, high speed, Cream Breakers.
2—50 gal. Springfield E. B. Cream Remelters.

MARSHMALLOW MACHINERY

2—Springfield 50 gal. Marshmallow Beaters.
1—Savage 80 gal. Marshmallow Beater.
1—Hobart 3 speed Marshmallow whip, 80 qt. capacity.

• THERE is only a sh time left in which to c ent is s the floors of this famous hen the tory. We offer at *sacri* ing on prices, for quick sale and al opp moval, all the machin *your* equipment, conveyors, ac nt up-t sories and systems forme enome used by Park & Tilford. T ay we advantage of this opportun rite too NOW. xpense,

ACT NOW! Wr Wi

MODERNIZE OU AT ROCK BOM

STEAM KETTLES

30—Steam Jacketed Kettles, with bottom-draw-offs, following sizes:
10 gal. 35 gal., 40 gal., 50 gal., 60 gal., 80 gal., 100 gal., 150 gal., 350 gal.
Steam Jacketed Mixing Kettles:
25 to 100 gal. capacity, single and double action.

1—
9—
1—
15—
10—

The above is only a partial list of the availa

LET US SHOW YOU THROUGH THIS MOST MODERNLY EQUIPPED PL R REP

Write or Wire Us Coll r Pri

UNION CONFECTIONERY MACHINER CO.

CABLE AD FECMAC

CALL

Rnaining
&TILFORD

t . . . . New York City
CHOLATE MACHINERY
NT SACRIFICE PRICES

THE remaining equipment is still set up as it was when the plant ceased operating on May first. This is a real opportunity to modernize *your* factory with excellent up-to-date machinery at phenomenally low prices. Today we suggest that you write today, or wire at our expense, for prices.

Wire for Prices

IZE OUR PLANT
K BOOM PRICES

CRYSTAL AND PAN DEPARTMENT

1—300 gal. Steam Jacketed Crystallizing Tank.
9—Crystallizing Tanks with screens, pans and baskets.
1—Tilting Crystal Frame.
15—Burkhard 38" Revolving Pans with and without coils.
10—Syrup Kettles, 10 to 25 gal. capacity.

UNION Rebuilt Candy Machinery

PIECE MEAL

HARD CANDY MACHINERY

1—Simplex Steam Vacuum Cooker.
1—800 lb. Burkhard Vacuum with kettle and pump.
2—Racine Die Pop Machines, motor driven.
1—Racine Duplex Automatic Sucker Machine with conveyor and blower, motor driven, latest style.
1—Package Machinery Sucker Wrapper Machine, adjustable, motor driven.
1—Hildreth size 6, double arm, Pulling Machine, motor driven.
1—Hohberger Continuous Cutter, with chains.
1—Racine Continuous Cutter.
2—Werner Ball Machines.
2—York Batch Rollers, electrically heated, motor driven.
4—Water-Cooled Tables, 3' x 6' and 3' x 8'.
1—Forgrove Hard Candy Wrapping Machine (with twist ends), motor driven.
1—Kiss Machine.
3—Mills Drop Machines with Rollers.

CHOCOLATE COATING MANUFACTURING

1—Bausman battery combination of four discs with two 500 lb. kettles.
2—National close coupled, pot Conges, 4000 lb. capacity each.
4—National Equipment Longitudinal Conges, 1600 lb. capacity.
3—38" National Triple Mills.
4—National 3 and 5 Roll Refiners.
10—National Chocolate Melters—2000—1000—500 lb. cap.
1—W. & P. 100 gal. Double-Arm Mixer.
2—National Paste Moulding Machines with shaking tables.
1—Racine Chocolate Kiss Depositor.
3—Long Chocolate Cooling Conveyors.
1—National four roll cocoa cake breaker.
1—Schutz O'Neil Sugar Pulverizer.
3—Springfield Chasers.
1—Springfield Melangeur.
1—Burns Cocoa Bean Cleaning Machine, complete.
2—National Crackers and Fanners, seven compartment.
1—Lehman Dust Cleaner.
6—Five and Ten Cent Ferguson and Haas Chocolate Bar Wrappers.

Also SPECIALS from LIQUIDATION OF KEYSTONE CHOCOLATE CO. HARRISBURG, PA.

1—Lehman Complete Automatic Cocoa Powder Outfit with block breaker, cocoa pulverizer, bolter, cooler and Gayco wind sifter.
2—Lehman 12-pot Upright Cocoa Presses, automatic, late style, with pumps.
1—Carey 13-pot Cocoa Press, metal pads, late style, with pumps.
1—Bausman Liquor Disc Process Machine.
1—Racine Chocolate Depositor with long metal belt.
1—Springfield 10-lb. Chocolate Weighing Machine.
4—Lehman 4-pot Conges.
1—Springfield 6-ft. Chaser.
2—Carey type 6-ft. Melangeurs.
1—Lehman Cooling Tunnel, Complete.

available in the Park & Tilford Plant
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s Coll r Prices and Details

ER CO., 318-322 Lafayette St., New York City

ABLE AD FECMACH

The Key Piece of DIRECT MAIL LITERATURE

from Manufacturers to Buyers

THE object of every manufacturer is to develop a market for his products—and a preference for his house. But no market can be developed by the occasional mailing of circulars to the trade • • • It takes continuous contact with the buyers and constant presentation of the manufacturer's message to develop the desired preference for his products in a highly competitive market. • • • This becomes costly with ordinary direct mail. The best printed medium for increasing and retaining jobber and dealer enthusiasm to increase sales is to employ advertising in the *Key Piece of Direct Mail Literature of the Industry*—The CONFECTIONERY BUYER • • • It is less costly per buyer and far more effective.

The CONFECTIONERY BUYER is recognized as not "just another trade paper" but rather a nation-wide program for Better, More Profitable Merchandising of Candy • • • It will carry your sales message to a selected list of 8,000 Wholesale, Chain Store, and Large Retail Buyers representing the greatest potential buying power in the distribution of candy.

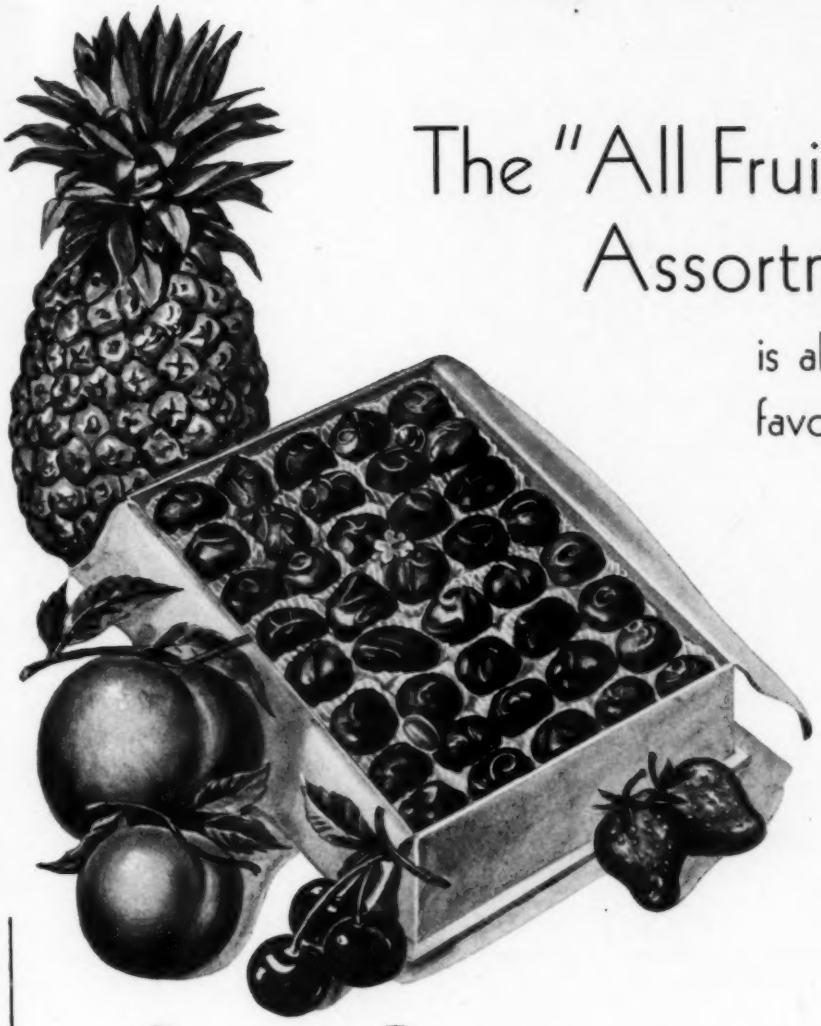
Your salesmen move your goods toward the buyers. The CONFECTIONERY BUYER moves the buyers toward your goods. Properly coordinated, the two present an irresistible combination.

The Specialized Publication Edited and Circulated Direct to 8000 Buyers

THE CONFECTIONERY BUYER

Division of The Manufacturing Confectioner Publishing Co.

1142-3 The Merchandise Mart, Chicago, Illinois



The "All Fruit" Assortment

is always a favorite

Your Customers should like the Novelty, Variety. Healthy Food Values, and the Delicious Combinations possible with Assorted Liquid Chocolate Fruits.

For you the All Fruit Box can mean added Prestige and Popularity at low cost.

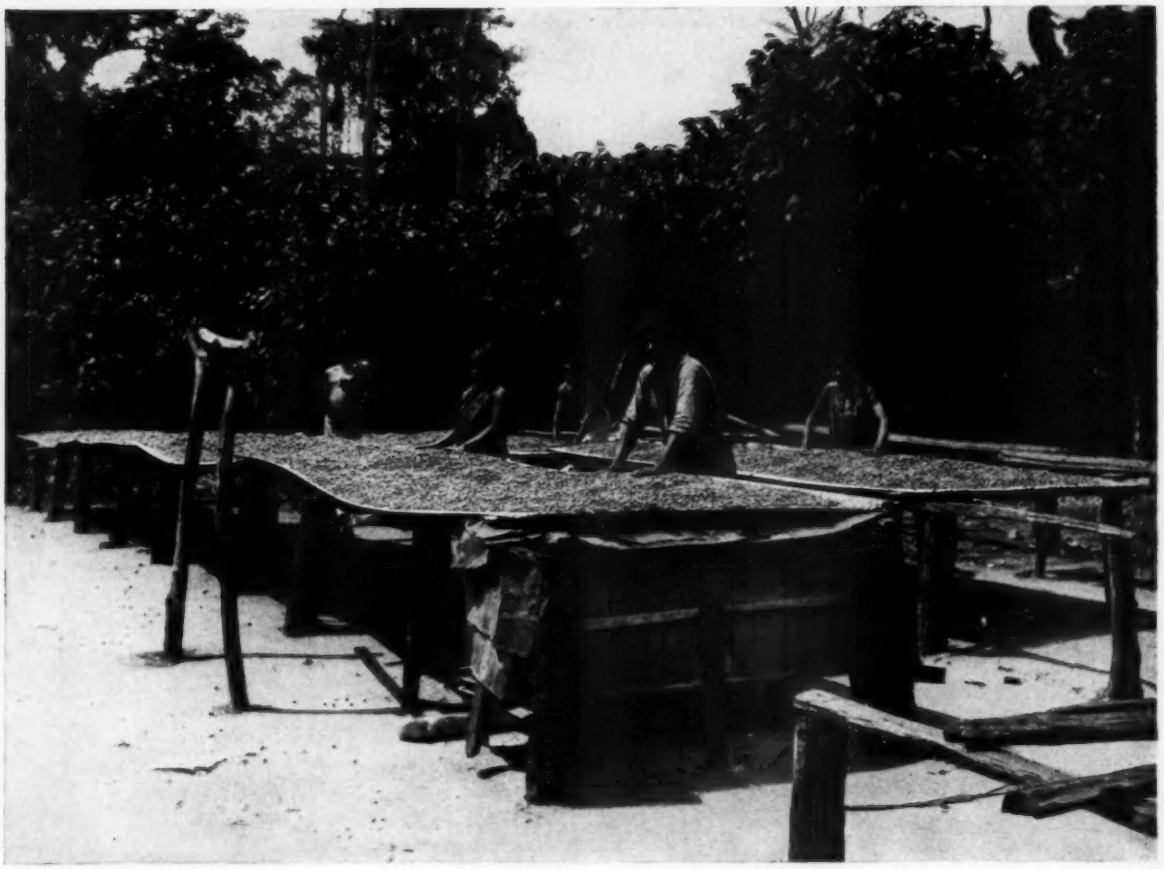
BLANKE-BAER
DIPPING FRUITS

OLYMPIA DIPPING STRAWBERRIES
PINEAPPLE CUBES
APRICOT CUBES
PEACH CUBES
DIPPING RAISINS
DOMESTIC DIPPING CHERRIES
MARACHINO TYPE CHERRIES
DIPPING PRUNE PIECES
DIPPING KUMQUATS

We will be glad to furnish complete information about our Dipping Fruits on request.

BLANKE-BAER EXTRACT AND PRESERVING COMPANY

3224 SOUTH KINGSHIGHWAY **SAINT LOUIS, MO., U. S. A.**



Drying the Cocoa Beans on a tropical Plantation. Here the beans are carefully sorted and graded, prior to shipment to the GUITTARD plant in San Francisco

The secret of making GUITTARD COATING begins long before its progress through the plant « « « Our modern machinery is a big factor, but most important is the ***quality*** of Cocoa Beans, which are carefully selected by Guittard buyers at the plantations

GUITTARD CHOCOLATE CO
EST. 1868 «» **SAN FRANCISCO**

FAMOUS FOR OLD DUTCH MILK AND FRENCH VANILLA COATING

Exchange BRAND

CITRIC ACID U.S.P.

"MADE FROM AMERICAN LEMONS"

By Exchange Lemon Products Co., Corona, Calif.

CRYSTALS · GRANULAR · POWDERED

IMMEDIATE SHIPMENT IN

KEGS · BARRELS · CARLOADS

FROM NEW YORK, CHICAGO, PHILADELPHIA, ST. LOUIS

▼ ▼ ▼

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Mallinckrodt CHEMICAL WORKS
St. Louis—Philadelphia—New York

DODGE & OLCOTT COMPANY
180 Varick Street, New York City

J. T. BAKER CHEMICAL COMPANY
Phillipsburg, New Jersey

NEW YORK QUININE & CHEMICAL WORKS
101 North 11th Street, Brooklyn, New York

▼

Pacific Coast Served by

Products Department—CALIFORNIA FRUIT GROWERS EXCHANGE—Ontario, California

OCTOBER

10th Month

31 Days { 5 Saturdays, 5 Sundays

Day of Month	Day of Week	EVENTS
1	Sa.	.....
2	S	.....
3	M	Monthly meeeting Candy Production Club of Chicago, Hotel Sherman, Chicago.
4	Tu	.....
5	W	Weekly meeting Colorado Confectioners' Assn., Oxford Hotel, Denver, Colo. (each Wednesday).—Monthly meeting Retail Confectioners' Assn. of Philadelphia, Elks Hotel, Philadelphia.
6	Th	Monthly meeting Cincinnati Candy Jobbers' Assn., Grand Hotel, Cincinnati, O.—Monthly Worchester Candy Jobbers' Assn., Yonkers, N. Y.
7	Fr	Weekly meeting Utah Manufacturers' Assn., Salt Lake City Chamber of Commerce, Salt Lake City (each Friday noon).—Monthly meeting Falls Cities Confectioners' Club, Louisville, Ky.
8	Sa	.....
9	S	.....
10	M	Sweetest Week.
11	Tu	Confectioners' Buying Assn., 17 E. Austin, Chicago.—Monthly meeting Chicago Candy Club, Chicago.
12	W	Columbus Day.—Monthly meeting Manufacturing Confectioners of Baltimore, Md.
13	Th	Monthly meeting Board of Governors of N. Y. Candy Club, Inc., Hotel McAlpin, New York.
14	Fr	.....
15	Sa	Sweetest Day.
16	S	.....
17	M	Prepare for Hallowe'en.
18	Tu	Monthly meeting Confectionery Salesmen's Club of Philadelphia, Progress Club, Philadelphia.
19	W	.....
20	Th	Monthly meeting Utah-Idaho Zone, Western Confectioners' Assn., Salt Lake City.—Monthly meeting N. Y. Candy Club, Hotel McAlpin, N. Y.
21	Fr	.....
22	Sa	.....
23	S	.....
24	M	Candy Executives and Associated Industries Club, 71 West 23rd St., New York.
25	Tu	Navy Day and Theodore Roosevelt's birthday.—Monthly meeting Candy Square Club of N. Y., Hotel McAlpin, New York.
26	W	Another month and it will be Thanksgiving.
27	Th	Monthly meeting Assn. of Manufacturers of Confectionery and Chocolate of State of N. Y., Pennsylvania Hotel, New York.
28	Fr	.....
29	Sa	Monthly meeting Pittsburgh Candy Club, Pittsburgh, Pa.
30	S	.....
31	M	Hallowe'en.

November

11th Month

30 Days { 4 Saturdays, 4 Sundays

Day of Month	Day of Week	EVENTS
1	Tu	.....
2	W	Weekly meeting Colorado Confectioners' Assn., Oxford Hotel, Denver, Colo. (each Wednesday).—Monthly meeting Retail Confectioners' Assn. of Philadelphia, Elks Hotel, Philadelphia.
3	Th	Monthly meeting Cincinnati Candy Jobbers' Assn., Grand Hotel, Cincinnati, O.—Monthly meeting Worcester Candy Jobbers' Assn., Yonkers, N. Y.
4	Fr	Weekly meeting Utah Manufacturers' Assn., Salt Lake City Chamber of Commerce, Salt Lake City (each Friday noon).—Monthly meeting Falls Cities Confectioners' Club, Louisville, Ky.
5	Sa	.....
6	S	.....
7	M	Monthly meeting Candy Production Club of Chicago, Hotel Sherman, Chicago.
8	Tu	Confectioners' Buying Assn., 17 E. Austin, Chicago.—Monthly meeting Chicago Candy Club, Hotel Sherman, Chicago.
9	W	Monthly meeting Manufacturing Confectioners of Baltimore, Md.
10	Th	Monthly meeting Board of Governors of N. Y. Candy Club, Inc., Hotel McAlpin, New York.
11	Fr	Armistice Day.
12	Sa	.....
13	S	.....
14	M	.....
15	Tu	Monthly meeting Confectionery Salesmen's Club of Philadelphia, Pa., Progress Club, Philadelphia.
16	W	.....
17	Th	Monthly meeting Utah-Idaho Zone, Western Confectioners' Assn., Salt Lake City.—Monthly meeting N. Y. Candy Club, Hotel McAlpin, New York.
18	Fr	.....
19	Sa	.....
20	S	.....
21	M	.....
22	Tu	Monthly meeting Candy Square Club of N. Y., Hotel McAlpin, New York.
23	W	.....
24	Th	Thanksgiving.
25	Fr	One month to Christmas. Holiday boxes and novelties all ready to go on display?
26	Sa	Monthly meeting Pittsburgh Candy Club, Pittsburgh, Pa.
27	S	.....
28	M	Candy Executives and Associated Industries Club, 71 West 23rd street, New York.
29	Tu	Easter and St. Valentine novelties and boxes should be well advanced by now.
30	W	.....

Let us help you meet the trend to

Wrapped Penny Goods

AS YOU ARE undoubtedly aware, there is quite a trend toward penny goods—and manufacturers are actively planning to cash in on it.

Properly handled, this penny-business can mount to real volume and worth-while profit.

One paramount essential is efficient production, which permits a profitable margin.

It is therefore extremely important to design your product for *machine-wrapping*—hand-wrapping is entirely too expensive for penny goods.

We will be glad to assist you in developing a new piece of such a shape and character that it can be wrapped economically and attractively by machine.

Our wide variety of machines, which wrap many different products (a few of which are shown here) plus our extensive experience in the candy field, enable us to meet the varied requirements of many manufacturers.

Whether you already have a "penny seller" or plan to introduce one, it will pay you to consult us—for lower costs and better profit.

PACKAGE MACHINERY COMPANY
SPRINGFIELD, MASSACHUSETTS
New York Chicago Los Angeles
London: *Baker-Perkins, Ltd.*

Editorial

Exhibitors to Have Voice in Exposition Plans

STARTING with this month the newly-formed N. C. A. Exposition Committee, under the direction of Chairman John Ballweg, Novia Candy Co., Inc., Brooklyn, N. Y., and Executive Secretary Frank S. Records, will hold regional meetings with the Exhibitors from the Supply Field to obtain their suggestions for planning the Annual Exposition to be held during the week of June 19, 1933, in Chicago. It is expected that the first meeting will be held in Boston, then New York and Chicago.

A representative from each firm exhibiting at the past three Annual Expositions will be invited to attend. Suggestions and constructive criticisms made by the Exhibitors will be referred to the Exposition Committee composed of four members from the Active Membership of the Association and six from the Associate Membership, representing the Exhibitors' Group.

Serving with Mr. Ballweg on the Exposition Committee are: Alton Miller, of Chas. N. Miller Co., Boston; Edw. W. Boehm, of Bunte Brothers, Chicago; and J. A. Cox, of Dilling & Co., Indianapolis. The Associate members are represented by L. B. Steele, of the Du Pont Cellophane Co.; James H. King, of Nulomoline Co.; Mr. L. Woolf, of H. Kohnstamm & Co.; Mrs. Earl R. Allured, of The MANUFACTURING CONFECTIONER, and representatives from two other trade papers which have exhibited at the past three Expositions. Others may be added to the committee later.

This will be the first time the Exhibitors have had a voice in arranging plans for the Annual Exposition. The MANUFACTURING CONFECTIONER heartily commends the National Confectioners' Association for this progressive step it has taken since the Atlantic City Convention. We know that we speak the general views of the Allied Trades when we add this word of praise. The present developments are bearing the fruit of the early efforts expended toward this end by The MANUFACTURING CONFECTIONER when it initiated the movement last June immediately following the Atlantic City Convention.

At that time due to more or less dissatisfaction among exhibitors, which had been growing the past few years, The MANUFACTURING CONFECTIONER made inquiry into the situation and brought the discussion to a head in an editorial entitled, "Taxation Without Representation," appearing in the June issue. As stated, "The time has arrived when the Allied Trades should have, not merely the privilege of contributing toward the Association's welfare, but should actually have a definite part in the conduct of its affairs so far as the Expositions are concerned. . . ."

This editorial was heartily received by both the N. C. A. and exhibitors throughout the supply field. In order to crystallize the opinions and desires of the exhibitors on June 25, 1932, we began a survey of the supply field, sending out a questionnaire which contained the following:

Do you believe the Associate Members should be represented on the committee that plans the conventions?

Where would you rather exhibit next year

at Chicago, in the Palmer House or the Sherman House? (Sherman decided upon.)

What special service would you like to have rendered (which is not now rendered) at the Exposition for the exhibitors?

What are your suggestions for successfully promoting the Exposition:

(a) With reference to attracting the manufacturers to the exhibits during convention week?

(b) Promotion of the Exposition before the convention to ALL manufacturers?

What features would you like to have in the N. C. A. Exposition that you have found of great help in other shows?

Would you prefer to have the Exposition handled as they have been previously handled?

Are you interested in forming an association of Associate Members?

Replies and suggestions were compiled in a report which was submitted to the Executive Committee of the N. C. A. at its meeting August 6th. The survey was carefully considered and the report was incorporated in the plans for the 1933 Convention now in the making. The Exposition Committees were appointed and action started.

This close cooperation between the two groups will prove invaluable to both the N. C. A. and the Allied Trades.

Hopeful Signs

FOR the first time in thirty-six months the Illinois State Department of Labor has been able to report an upturn in employment and an increase in payrolls. "While the increase was not large," said Howard B. Meyers, Chief of the Division of Statistics and Research, "it was certainly better than the unbroken parade of declines which have characterized every monthly report for the last three years." The report, which was for the month of August and was based upon statistics from 1,500 companies employing more than a quarter of a million people, showed a 1.3 per cent increase in employment and a 2.9 per cent increase in payrolls. Mr. Meyers stated that a similar increase in September above the normal seasonal increase would throw a definitely hopeful aspect upon the situation.

Among the industries showing the sharpest increases in employment, the confectionery industry was third with a gain of 55.6 per cent.

From another source, no less than Babson's Statistical Organization, comes more encouraging news. In an address on "The Outlook for 1933," delivered before the 15th Annual Conference of the Direct Mail Advertising Association, Ralph B. Wilson, vice-president of that organization, made the rather emphatic statement that, contrary to the opinion of many, the recent upturn is not political but fundamental. He added that, despite the skepticism with which his remarks would be received, his assertions and conclusions were based upon incontrovertible facts and figures, and therefore, were reliable. Among the facts enumerated as significant was the vast increase in valuation of American securities and commodities since last July. Mr. Wilson pointed out that every depression brought with it golden opportunities for those alert to the possibilities of the future. He predicted that, barring some unforeseen world catastrophe, conditions will again be normal by the end of 1934 and that investors in sound securities who buy for the "long pull" at today's prices will reap handsome fortunes before the new era has reached its eventual peak.

In making this last statement, Mr. Wilson is taking a lot for granted when he assumes that there are some people left who still have money to invest. Evidently he didn't have in mind anyone who has been connected with the candy industry for the last few years.

Such reports are cheering, nevertheless, and in some cases they do serve a salutary and constructive purpose. For that reason we submit them.

Chocolate Production *by the* Unit System

Many are the advantages of the small, self-contained unit to manufacturers of chocolate--large and small alike. Dr. Whymper tells why in the accompanying article.

By ROBERT WHYMPER

THERE is nothing new in the unit principle of manufacture though it has been too little appreciated as the surest and safest method of coping with steadily increasing business in normal times and, above all, with business depressions even of the magnitude that we are experiencing today, provided, of course, the unit principle is in operation. During boom periods any such mild talk as this, recommending the smallest rather than the largest most economical unit, is regarded as puerile and unprogressive as I know to the cost of many who would not listen to sound, if conservative, advice in the years immediately following the war. It is not, however, impossible, though sometimes difficult, to reorganize old straggling plants on the unit principle, and the subject matter of this article should, therefore, be of interest to all chocolate manufacturers, if primarily to those in the position to erect a new factory.

Large Scale Expansion Resulting from Sweets Shortage

During and just after the war there was a distinct shortage of sweet confections all over the world, and the immense possibilities that loomed up for making good this shortage as soon as peace came, and for meeting still further demand that was anticipated as a result of prohibition, dazzled the eyes both of prospective manufacturers and of those already old to the business. There was an immediate rush to buy, often with borrowed capital, the largest machinery possible that could turn out chocolate of a sort, and huge factories, sometimes equipped with large mixers and storage tanks only, sprung up all over the place, while others were enlarged almost regardless of their suitability and layout. The entry of some brewers and other outsiders into a business they did not understand did not help matters. Needless to say all this had a great influence on the quality of goods turned out, since demand exceeded supply for a time, and the benefits to quality arising from competition did not occur. An abnormal demand was, then, in process of being met and was in fact completed when the sudden collapse to a subnormal demand at the depth of the present depression left many of these top-heavy structures in the air, since the frothy basis of their existence or of their expansion based on borrowed money, used for purchase of machinery, plant and buildings at fabulous prices, had been removed overnight, as it were. Had the smallest, most economical unit of manufacture been adopted at the outset as a working basis, and expanded by units as demand for the particular product increased, the most serious effect of a cessation of demand from the abnormal to subnormal would have been avoided, even if excess expansion had been foolishly followed. Firstly, as a matter of principle and fact, there is a unit for chocolate manufacturers which, if exceeded in size, cannot be properly supervised. Thus the small unit is of great importance in quality production though unfortunately this has too infrequently been of interest to chocolate manufacturers. Secondly, the unit can be added to by tacking on any number of other units, and mass-production can be practiced, if desired, without the disadvantages of the usual mass-

production in immense unwieldly and straggling plants. Thirdly, when supply exceeds demand as might arise

(*a*) in any factory from unwisely expanding too much, or

(*b*) from fall in individual purchasing power such as exists today, there is small difficulty in coping with the situation with minimum loss by closing down one unit at a time.

Desirability of Continuous Processes

Continuous processes obviously lend themselves to the unit principle better than intermittent ones, because, first of all, the economic coordination of output of intermittent machines is difficult, and, secondly, because, owing to the greater amount of labor required for intermittent machines and plants, there is necessarily a great deal of overlapping of jobs tending to prevent the economies arising from the unit existence of a self-contained plant.

It is, of course, perfectly possible to lay out a unit chocolate plant using only the ordinary existing machinery and employing substantially the usual processes practiced. But the objections are obvious to any chocolate manufacturer, large or small, making several types of chocolate, varying as much in demand as in quality, which he may (though he need not) run through any of his machines indiscriminately regardless of the position of any one machine in relation to other machines used previously or just after. Then again, there are the problems of having to weigh out all the necessary ingredients for a formula at the outset and of having to find employment for surplus labor arising from intermittent operations. The pieces of machinery often idle for a time in a non-continuous system, or only partially occupied if several different chocolates are being made on the same series of machinery, must also not be overlooked.

For these reasons many attempts have, with variable success, been made to devise a self-contained unit chocolate plant, the most successful in operation to date necessitating the scrapping of most of the usual chocolate machines and the purchase of other highly expensive and patented devices. But even this process which I have mentioned, however commercially successful, is not truly continuous since automatic weighing and measuring of the sugar, cocoa liquor, etc., which have to be controlled by hand, reduce this process to a batch proposition which is neither the most economical nor the most satisfactory from our point of view. I do not intend here to elaborate plans for erecting or collecting chocolate machines on the unit system, seeing that anyone interested can establish the capacity of his machinery and link them together if he is so inclined. But elsewhere the writer brought to the notice of the chocolate industry the possibilities of using liquid sugar in a truly continuous chocolate process, and, now that the manufacturer of chocolate from liquid sugar in a continuous manner on a small unit has been shown to be a commercial and practical possibility, it opens up a new project that I propose to discuss here. The fact that the continuous process using liquid sugar has not been offered to the industry as yet is in no way due to lack of practicability but entirely to the fact that the company, which was far-sighted enough to see the possibility of liquid sugar in all its forms in the future, and for which the process was developed and patented, is more immediately interested in sucrose-invert syrups than in those of higher sucrose content necessary for this process. Then, again, it was claimed by several large chocolate manufacturers in the boom years when the process was under development that production of a chocolate on one unit at the rate of some 750 pounds per hour was altogether inadequate. This argument has, however, proved fallacious as it always was, though it provided one reason for decrying at the time an innovation which all backward industries seem to detest.

Liquid Sugar Here to Stay

Liquid sugar in all its form has come to stay. The present immense and increasing consumption of the sucrose-invert syrups in ice cream, soda fountain syrups, pickles, preserves, etc., indicate almost endless possibilities, and prove obviously the greater attraction at the moment for both manufacturers and users of these forms of liquid sugar. It is only a matter of a comparatively short time, however, when it is hoped both the high sucrose syrups and the continuous chocolate process will together

(*Continued on page* 50)

Air Conditioning *and* Refrigeration

for the

Small *and* Medium Sized

Candy Manufacturer

Part 6

By R. G. HUTCHINSON, 3rd
Consulting Air Conditioning Engineer

CONSIDERABLE trouble may be experienced in an unconditioned slab room in humid weather. The goods will almost invariably become sticky and difficult to work properly. Moisture from the air will, of course, be condensed on the cool surfaces of the cooling slabs and will in turn be picked up on the batch. It is obvious that this undesirable condition will retard or stop production and will cause inferior finished goods. If the pieces are individually wrapped while in a sticky state the consumer will undoubtedly get a package of paper coated candies instead of goods which may easily be removed from their wrappers. Second purchases of pieces which are marketed in such condition seldom follow if properly conditioned candy of other brands is available to the buyer.

Conditions identical to those recommended for the hard candy packing room will produce equally satisfactory results in the slab room. Air from the conditioner of the former department may be used for the conditioning of the latter room. However, it is not necessary to maintain the relative humidity within such exacting limits. The humidity must not exceed the prescribed percentage but may be allowed to fall below the range indicated for the hard candy room. A conditioner which will maintain a temperature of 75 degrees and will at all times hold the relative humidity at 45 per cent or below will be entirely satisfactory for this duty. For this reason the unit cooler is as adaptable to use in the slab room as is the spray type conditioner. Unless air from a central station conditioner is available, the unit cooler would in all probability prove to be the most economical installation.

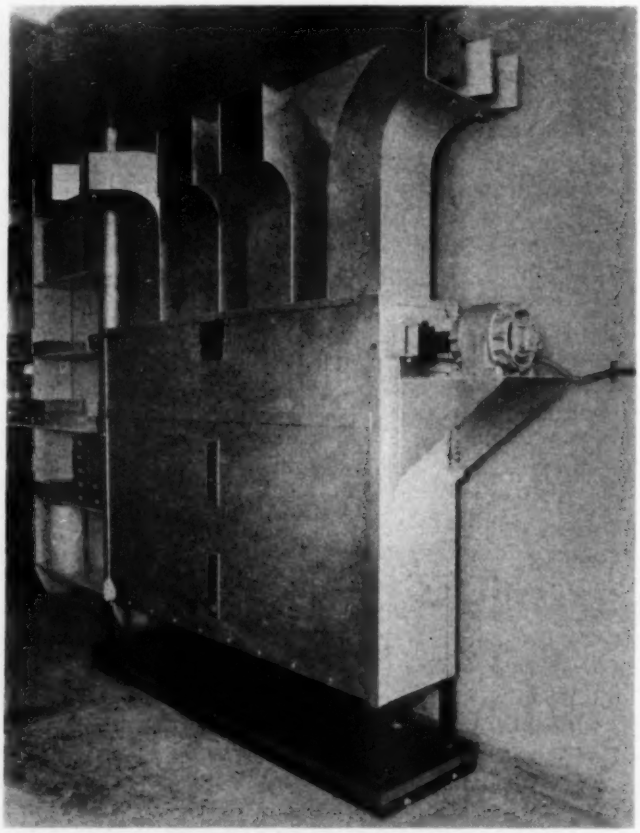


Fig. 1—Floor type unit cooler in candy stock room

Wrapping Room

This room may be combined with the slab room or may be partitioned off into a separate space. Here, also, a temperature of 75 degrees with a maximum relative humidity of 45 per cent should be maintained. Goods which leave the slabs and cutters in perfect condition may attain an extremely

sticky state if wrapped and packed in an unconditioned room. If the atmospheric conditions are correct throughout the manufacturing stages, the goods will retain their perfect condition for a long period. Every candy manufacturer knows the difficulties experienced in the operation of wrapping machines in excessively humid air. These difficulties are entirely eliminated by the proper conditioning of the wrapping room.

Candy Storage Room

But few candy manufacturers are free from the problem of building up and storing large stocks of goods for consumption during relatively short peak periods. Months may be spent in manufacturing goods which will be retailed during a period of only a few days. This presents a very definite storage problem. If goods spoil or their appearance deteriorates while being held, the misfortune is usually not discovered until too late to replenish the stock. In any event a loss is suffered. One such loss probably would go far toward covering the cost of air conditioning equipment for the candy storage room. If this space is conditioned, properly manufactured goods can be stored indefinitely without danger to the quality or appearance of the candy.

Conditions such as are maintained in the chocolate packing room are proper for the storage room, namely a temperature of 68 degrees with a relative humidity of 50 per cent. Control of the relative humidity, as well as the temperature, is of great importance as the adverse effect of excessive moisture is as marked in long storage as in manufacture. The spray type or unit cooler type of air conditioner may be used for the candy store room. Air circulation should be insured in all parts of the room and the air volume should be sufficient to give a four minute to six minute air change.

Human Comfort and Efficiency

It is an established and well known fact that atmospheric conditions have a great effect on the efficiency of workers. In the "dog days" of spring, summer and fall the hot, humid weather leaves its mark on both employees and goods. On these days motions lag and the brain reacts to the physical state. Far less than a full day's work is accomplished in the operating period and production falls to a lower level. If adverse outside weather conditions are not allowed to prevail within the plant a saving is realized in labor as well as in the goods in production. No wise manufacturer would knowingly hire normally inefficient employees so why allow the weather to lower the standard of good labor. High relative humidity which is the enemy of candy ingredients is also one of the chief atmospheric causes of lowered human efficiency. Even in comparatively high temperatures a state of comfort exists if the moisture content of the air is kept at a low point. The conditions which most benefit the goods in candy manufacture also produce a state of human comfort giving a double return to the manufacturer who conditions the air in his plant. If steady employment with no shutdowns due to weather conditions is insured and a comfortable working place is provided, a manufacturer may secure and hold the services of finer labor than could be hoped for otherwise.

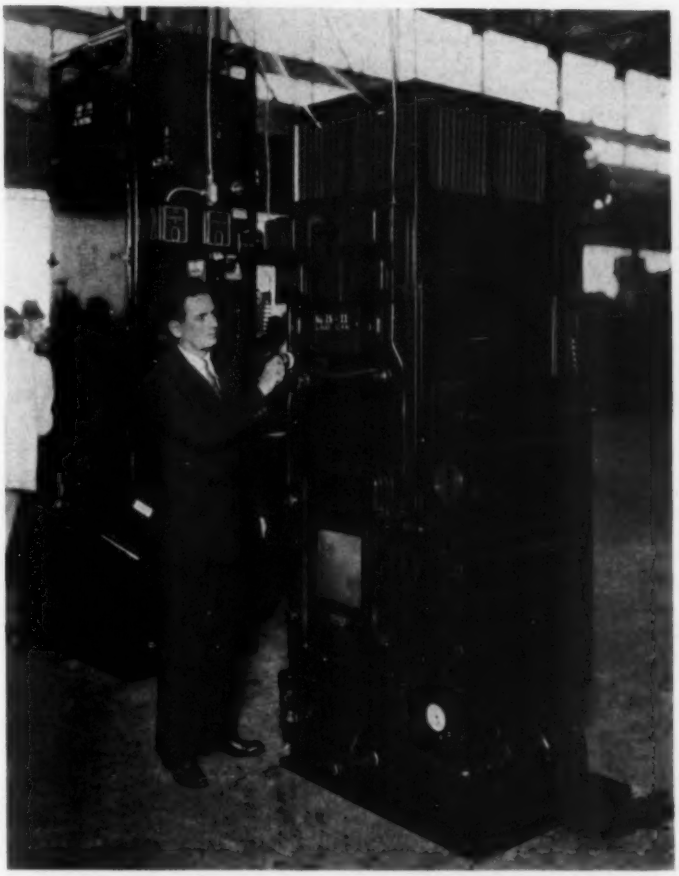


Fig. 2—Spray type unit air conditioner with full automatic control

Winter Operation

Many departments of the candy plant require cooling or dehumidifying even during the cold months. The use of mechanical refrigeration for this purpose may be eliminated, when outside temperatures are sufficiently low, by the installation of air supply ducts connecting the conditioners with a source of outside air. Through these ducts may be drawn an amount of air sufficient to provide the necessary cooling or dehumidification. The remainder of the air handling capacity of the con-

ditioner is taken from the room and that air is recirculated through the machine being mixed with the outside air. If the equipment is of the spray type and an exact control of the humidity is required, the spray water circulating system may be operated producing a humidifying or dehumidifying effect as in operation with mechanical refrigeration. The machine then serves as a very efficient cleaner for the circulated air. During warm periods the air intake ducts may be used to introduce fresh air into the conditioned space for ventilation.

THIS is the sixth and concluding installment of Mr. Hutchinson's informative series of articles on Air Conditioning and Refrigeration which began in the March issue of The MANUFACTURING CONFECTIONER. Mr. Hutchinson has taken the reader through the candy plant, from the ingredient storage room, down through the various departments to the point where the finished candies are wrapped and stored ready for shipment. During the course of this journey much ground has been covered. However, some questions on this extremely important phase of candy making may still linger in the minds of some of our readers and to those we invite correspondence.

In the meantime, we hope the series has afforded some a better and more thorough understanding of air conditioning and refrigeration in its application to the different phases of candy manufacture.—Editor.

Refrigerating Equipment

Three types of refrigerating equipment are used in candy plants. They are the compression system, the absorption system and the vacuum system. Of these three, the compression system is by far the most widely used. Several refrigerating mediums are available but ammonia is found in a great majority of the installations. The refrigeration may be applied to its air conditioning duty directly or indirectly. In the first case the refrigerant is carried directly to the cooling coil of the air conditioner in a liquid state. There it evaporates into a gas absorbing heat through the coil surface and is returned to the refrigerating plant. In the indirect system the refrigerant is used to cool a supply of brine, water or some non-freezing solution. This liquid in turn is carried to the air conditioner cooling coil where it receives heat from the air and is then returned to the cooling tank or enclosed type cooler.

The compression system is the choice of most candy manufacturers because of the fact that it is comparatively simple to operate and does not require steam in its operation as do the other two types of refrigerating equipment. If large amounts of process heat are required continuously in a plant, the absorption system or the vacuum system may be the most economical type to operate. However, in a candy plant where relatively little steam is used the compression system is usually more satisfactory. Its operation does not require the firing of the steam boilers when heat is not needed for manufacturing purposes.

A choice between the direct and the indirect method of applying the refrigeration is largely dependent on the requirements and circumstances surrounding each individual installation. Temperatures to be maintained, plant layout, space available for refrigerating equipment and length of operating period must all be considered before making the choice. Both systems are highly satisfactory but should be selected on their merits for the particular application.

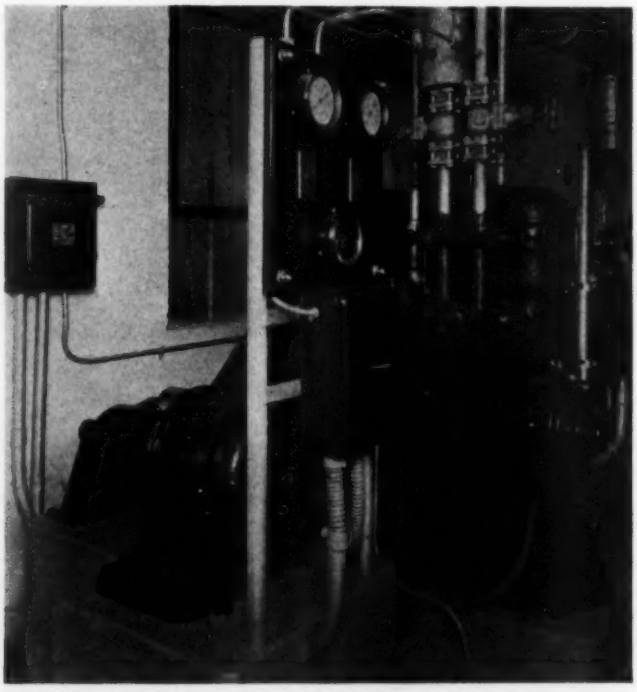


Fig. 3—A two-cylinder vertical ammonia compressor

Cooling Coils

Numerous plants in the past have been equipped only with wall type or ceiling type cooling coils. While these coils will control the room temperature, they aid but little in reducing the relative humidity due to the low volume of air circulation over their surfaces. Moisture is con-

densed on the coils forming frost but the amount of moisture removed from the air is only a small fraction of the quantity which is condensed in an air conditioner producing the same amount of cooling in a given time. This is clearly illustrated by the rapidity with which frost is built up on the surface of a unit cooler as compared to the wall or ceiling type coil operating with a refrigerant of the same temperature.

Gravity air circulation which is set up by the cooling coil is of very low velocity and, therefore, brings only a very small amount of the air in the room in contact with the coil each minute. This allows a considerable amount of moisture to collect and remain for some time in the air before it is passed over the cold surface and is condensed. For the same reason there is almost invariably a temperature difference of several degrees between various points in the room.

The air conditioner employs a positive or forced air circulation. With this equipment all of the air in the room is passed through the machine every four minutes to eight minutes. In consequence, more moisture is brought in contact with the cooling element each minute and is condensed. A lower relative humidity is thus maintained than is possible with the cooling coil. The forced circulation produces, also, an even temperature throughout the room as heat is quickly carried away from the vicinity of objects from which it emanates.

In many instances the efficiency of cooling coils can be increased without a large expenditure of money. If the refrigerating plant is not operating at full capacity or its capacity can be increased by speeding up the compressor, the coil efficiency may be raised without unbalancing the system. To make the coils produce a greater cooling and dehumidifying effect it is necessary to pass more air over them. This may be accomplished by installing disc fans so as to create a rotary air circulation in the room and cause a higher air velocity over the coils. Any obstructions to air circulation should be removed and stacks of boxes or materials should be kept a sufficient distance from the coils to permit a free flow of air.

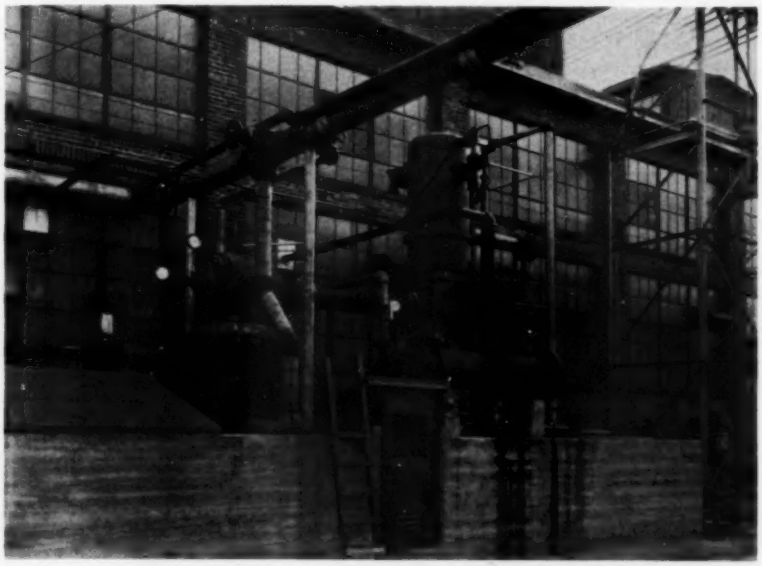


Fig. 4—A large vacuum refrigeration system

Fig. 1 shows a typical unit cooler installation in a candy stock room. Although this installation is located in an extremely hot territory no trouble from atmospheric causes is experienced in the storing of goods.

Fig. 2 is a photograph of a spray type unit air conditioner with full automatic control. This unit is adaptable to use in any department of the candy plant including the hard candy packing room and the marshmallow curing room. Automatically controlled bypass and return air dampers are shown on the right-hand side of the machine.

The ammonia compressor shown in Fig. 3 supplies refrigeration to the unit cooler illustrated in Fig. 1 as well as to other similar units.

Fig. 4 is a view of a large refrigerating system. Due to the nature of this equipment it may be located out of doors.

The End

New and Unusual Uses of Sugar

WHILE practically all of the sugar consumed in this country is utilized as *food*, the low price of the past few years and the abundance of supply, has encouraged its utilizaiton in other fields. In the United States, as well as in some European countries, sugar is now being used to manufacture synthetic citric acid. A firm of bagpipe makers in Scotland seasons the bags of the Scotch musical instrument with sugar, as it is the only substance which assimilates the moisture in the breath and dries slowly.

Scientists of the Mellon Institute of Industrial Research at Pittsburgh, recently visualized the general use of sugar in modern construction work. They stated that by "sweetening" plaster and mortar, it was possible to increase the strength by approximately 60 per cent, thus lengthening the life of the structure.

A company has been organized for the purpose of utilizing sugar in the manufacture of transparent rubber, plastics, artificial leather, paints, varnishes, non-inflammable celluloid and shatter-proof glass. The plastic material obtained from sugar, it is stated, can be manufactured into fountain pens, lamp shades, table and desk tops of various shapes and colors. While production has not reached the commercial stage, laboratory experiments have progressed to a point where success appears probable.

A "Beauty Primer" for the fair sex, on sale at one of the large chains with stores throughout the United States, suggests saturating a lump of sugar with perfume and eating it. A sweet breath they claim is sure to result.

Consumption of sugar in the United States during 1931, according to the Statistical Department of Lamborn & Company, Inc., aggregated 5,941,000 long tons (raw sugar), equivalent to 108 pounds per capita. Based on an average retail price of 5.7 cents per pound, the sugar bill of the Nation in 1931 exceeded $700,000,000.

Report from Lamborn & Company, Inc.

. . SUGAR . .

Part 2--In which we make some simple tests

By A. B. KENNEDY

ELLIS PARKER BUTLER once said "Pigs is Pigs" and I guess they are, but from what has been set forth in the previous "Chat About Sugar" you no doubt are of the opinion that "Sugar is not Sugar."

That your faith in this belief may remain unshaken, we will study a few simple tests that are easy to perform but not quite as easy to truly interpret.

First let us consider the appearance of several samples of "Standard Granulated"—different Refiners use slightly differing designations—each sample of course consists of a body of small crystals. One sample will perhaps appear to be composed of crystals of nearly uniform size, while another will very plainly show considerable variation. To make this test, moisten the tips of the fingers by blowing your breath on them, lightly touch the finger tip to a small pile of the sugar under examination. A thin layer of crystals will adhere to the finger tip. If several sugars are thus compared on adjacent fingers a difference in granulation, if existence, is readily detected.

After inspection for uniformity of "grain" a comparison of "dry color" can be made as follows: Arrange the sugars in small piles close together, then carefully flatten these piles so that when finished you will have a layer of sugar composed of all the samples under examination and this layer will be banded, each band representing a given sugar. Next examine this preparation under a good "Daylight" light. An off colored sugar will appear "yellowish" or "grayish," a normal sugar will of course be white. While not exactly color, the appearance of the crystals while being examined will be such that the white may seem "dead" or "alive." A dull sugar is a "dead" sugar. A sparkling sugar is "live."

Grading Sugar

Before we get too far afield let us have a little discussion. From experience it is known that many purchasers of sugar will claim that So-and-So's such-and-such a grade of refined granulated is coarser or finer than what is being supplied. To a certain extent this is true and the "finger tip test" will verify the fact. It is also true that all refiners maintain a control on the average crystal size in a given grade. The work at the vacuum pan where crystallization is effected is the starting point. The work at the centrifugal station where the mass of crystals is purged of the mother liquor and washed with water also has some bearing. The separation of the crystals into "grades" after granulation is effected in a mechanical sifter. The type of classifier differs in different refineries, but the Hummer vibrating screen is used to a great extent. In the Hummer separator the sugar flows onto a set of superimposed wire screens of suitable mesh and set on a slope. The screens are vibrated by an electro-magnetic vibrator. The sugar passing a given mesh screen and failing to pass the next screen passes to a spout which carries it to storage ready for packing as a "grade."

As was mentioned in the previous paragraph a control is maintained to assure the proper size crystals. This control begins at the start of crystallization and is supplemented by laboratory screen analysis of the finished product. Obviously there is a practical limit to the uniformity which can be maintained economically. For instance the efficiency of classification by screening is dependent upon the thickness of the layer of material on the screen. The thickness of this layer in practice is affected by the rate which sugar must be passed through this process of clasification.

Now whether or not Mr. Jones is justified in taking his business away from X and giving it to Y because X's product is not uniform in "grain" or color is of no practical significance. The fact remains, Mr. Jones is fickle and places his business where he pleases. So my purpose in going into all this detail is to try and persuade Mr. Jones to give X a break by realizing that it is quite probable that by the time Y's product has been used awhile X's product will be just as good or maybe better. Don't change your supplier without making an intelligent study of your complaint and placing this complaint before your supplier to the end that he may remedy conditions. The benefit will be mutual.

A Few Simple Tests

Getting back to our examination of sugars, let us consider why some sugars "sparkle with life" and others are "dead" in appearance. The appearance of a mass of crystals is a physical phenomenon, a phenomenon of light absorption, reflection and refraction. The magnitude of any of these processes is dependent upon such factors as crystal size, crystal shape, the presence or absence of surface pits, surface crystals, occluded substances, etc. The aforementioned conditions are directly due to the nature of the raw material, the

process, the equipment and the skill of the refiner. If I seem to repeat too often it is only to impress you with the fact that "sugar quality" is variable and why.

Bardorff, a worker of great experience in the applied chemistry of sugar manufacture, has devised a simple test for white sugars. This test depends on the washing of the surface film from the sugar by percolating distilled water through a column of loosely packed sugar in a glass tube. As the percolate passes downward the dissolved or suspended surface impurities accumulate in a narrow band that precedes the advancing percolate. Bardorff devised this simple test while studying the complaint of an aerated beverage manufacturer. This test when used in conjunction with an examination of crystals under a daylight lamp and the determination of color in a 50-50 solution as outlined in my first article, comprise the preliminary investigation for most white sugars. The percolation test is best carried out in a glass cylinder of about 1 in. dia. and 4 in. to 6 in. high. The distilled water (best obtainable) should be cold—10° C. or 50° F.—and be dripped on the column of sugar. This can be accomplished quite easily with a medicine dropper. Avoid flooding the surface, use 10 milliliters of water. The appearance of the band or ring formed is an index to the sugar's quality. If yellow or brown in color this is principally due to dissolved color, probably caramel. A gray tone is indicative of colloids; gums, waxes, etc.

If a large quantity of sugar—1 to 2 pounds—is dissolved in a pint to a quart of best distilled water and the solution examined critically a great deal may be learned. The solution should be prepared in a transparent container such as a 4 liter Pyrex "Griffin" beaker. After solution has been effected cover the beaker with a watch glass and set aside until all air bubbles have disappeared from the solution. Since this will require time, the solution may be carefully brought to a slow boil which will expel the air. The danger of the heating is that some color may develop due to a local super-heating. Such color development will vitiate results. When the solution has been freed of air bubbles it may be examined qualitatively for color, turbidity, coarse suspended matter and sediment.

It is generally assumed that high grade granulated sugar is 99.9 per cent pure—this assumption is somewhat in error. The sugar itself will closely approach this degree of purity, but if large quantities are examined as above some extraneous matter will be found associated with the sugar. Since in large volumes of a solution feebly colored, the color is more pronounced and likewise any cloudiness or turbidity made more evident, the use of large quantities is advisable. The solution does not suffer in any way and can be introduced into most any process without loss. With respect to sediment this may be small black specks that have been derived from the equipment of the refiner. Often referred to as equipment specks, it is a scale, generally iron rust as chemical analysis will reveal. Coarse suspended matter, bag fibers, hair, etc., are of obvious origin. Needless to say, these should be at a minimum.

Insects and Odors

Sometimes, on very rare occasions, foreign substances of unusual character will be encountered. There is the case of Termite invasion of bags of sugar. The subterranean specie of Termite constructs tunnels of sand and earthy substances wherever it ventures so that it may be protected from light and maintain the proper moisture in the air so necessary to its existence. These structures have been found in bags of granulated sugar. The Termite or so-called white ant is a furtive creature and retreats at the first sign of danger. The insect is not often found, but its structures are.

Another example of insect infestation of stored sugar is the case of the finding of small grain beetles in powdered sugar. According to an eminent entomologist this is a very rare state of affairs and was no doubt due to infestation of the cartons in transit in box cars previously used for grain. Isolated cases such as these are sometimes a source of embarrassment to the refiner and displeasure to the purchaser of the sugar.

It sometimes happens that sugar is odorous. Theoretically pure sugar is odorless. The presence of an odor is always due to an associated impurity. To make an odor test place ¼ pound of sugar in a clean odorless mason jar of ½ pint capacity, note the odor, if any. Close the jar with a clean, odorless, porcelain lined screw cap. Place the jar in an oven or immerse in a water bath and heat at a temperature of 100°C. or 212° F. for 20-30 minutes. Unscrew the cap and note odor. Some of the odors that may be perceived are: musty, glue like, caramel, woody and smokey. The highest grade refined sugar when hot appears to have an odor best described as fresh and clean. Sugar of fine granulation will readily absorb odors if stored in the vicinity of odor emanating substances. If sugar has been in the neighborhood of a wood fire it will give an odor of wood smoke in the odor test. As has been pointed out previously most beet sugars have a very characteristic "mousy odor"; the older the sugar the more pronounced is this odor.

In the visual examination of sugar a small hand lens of moderate magnifying power or even better a compound microscope with a 5X ocular and a 32 mm. objective will be of great assistance. A good microscope with the proper accessories will prove a valuable adjunct to the testing equipment of any manufacturer. Its utility is limited only by the ability and ingenuity of the technician using it.

Microscopical examination will reveal to the experienced observer whether a dull sugar is dull because of faulty granulation or is more

likely the result of occluded colloids. In the first case the dull sugar would be acceptable, in the latter other tests should be applied to see if the occlusions might have a deleterious effect on the product in which its use is intended. The microscope will also serve to aid in distinguishing between cane and beet sugars. In general high grade cane granulated from a bone char refinery has a crystalline form quite different from that of beet sugar. The best way to become familiar with this difference is to collect and examine samples of sugar of known origin.

Although it is next to impossible to distinguished different lots of sucrose crystals of high purity by taste, an apparent difference will be observed when some plantation whites, beet sugars and bone char cane sugars, are subjected to a "taste test." Try it and be convinced. This difference, when apparent, is due to impurities and is no doubt affected in part by the difference of crystal shape.

Effect Upon Flavor

According to the claims of any manufacturer, his product possesses merit equal or superior to that of his competitors. This is natural. But remember claims are one thing, facts another. And moreover facts are stubborn things. There are those who claim that there is no difference in refined sugars—that beet, plantation whites of cane origin, cane sugar refined with vegetable carbons, cane and beet sugars refined with bone char are all sisters under the skin. This is no doubt true. But what a whale of a difference that skin makes. Without going into the involved technicalities of the subject, let me say that for very obvious reasons arising out of the physical and chemical differences of the factors involved, not to mention the ever important dollars and cents element, that this "skin" is as different as human skins and thereby hangs our tale.

Some housewives of a generation ago and even some of this generation who put up preserves, conserves, jams and jellies, ask why is there a difference when we use beet sugar instead of cane sugar? One sugar producing organization answers this question by saying beet sugar is the best for this purpose. However, the questioners have found that some beet sugars are not so hot. Others have found that they have trouble with some cane sugars. And so it goes. Anyhow, a simple laboratory test will throw some light on the pro and con of this controversy. Make a dilute solution of essence of ginger—barely perceptible odor and flavor—and add 3 grams of sugar to 100 milliliters of the ginger solution, if the ginger odor and the taste disappears, which it will with some sugars, that sugar will have an adverse effect upon the flavor of a preserve, etc.

The relative volume of a sugar is dependent upon the size of the crystals. If all the crystals were of one size, then for a definite filling procedure the volume occupied by a given weight of sugar would be definitely related to the crystal size. Since this condition of uniformity is not the case, wide differences must exist between two sugars before this value attains any significance. The test when supplemented by the "finger-tip" test might serve as an aid in verifying the findings. Of course if you have access to a well equipped laboratory a sieve analysis is the most practical and reliable test for "grain" size. To make the relative volume test set up a support for a stemless 60° angle, 6″ dia. glass funnel with a ¼″ opening, so that the funnel opening will be 2″ above the rim of a 200 ml. glass graduated cylinder, place 100-150 grams of sugar in the funnel while keeping the funnel opening closed with the finger, remove the finger and allow the sugar to flow into the cylinder, read the height of the sugar in the graduate, remove the sample and repeat 3-4 times, taking an average of the readings. The weight of sugar taken divided into the volume occupied by the sugar is the relative volume figure. In general the finer the sugar the larger this value will be.

Testing for Sulphites

In examining plantation granulated the "oven test"—heating for 1-3 hours at 100° C. or 212° F.—reveals an appreciable darkening; this is particularly true if the sugar is a "sulphitation" sugar. The sulphitation process bleaches a sugar and when this bleaching effect is destroyed through heat or other agency the true color of the sugar becomes evident. The presence of sulphite sulphur, which can be easily determined qualitatively is an indication that the sugar is a sulphitation product.

A simple qualitative test for sulphites in white sugars is as follows: Dissolve 25 grams of sugar in 100 ml. distilled water in a 250 ml. Elenmeyer flask, add some pure zinc foil and 1-2 ml. concentrated hydrochloric acid (HCl). Prepare lead acetate test papers in the following manner: immerse inch squares of heavy white filter paper in a solution of purest lead acetate ($Pb\ (C_2H_3O_2)_2,3H_2O$). The solution contains 50 grams lead acetate dissolved in 50 milliliters distilled water. The "squares" are removed from the solution and drained. Be sure to avoid contact of these test "squares" with any metal. Place one of the lead acetate papers over the mouth of the flask. In the presence of the hydrogen sulphide gas liberated from sulphites the "squares" will show a dark brown to black stain which is direct evidence of a sulphitation sugar. As in any test procedure of this nature a "blank" determination should be run. This is accomplished by following the above instructions with the exception that the sugar solution is replaced by an equal volume of distilled water. The "blank" test should be of 20 minutes' duration. Warming the flask in all determinations is an advantage. If the reagents used (zinc foil and hydrochloric acid) are of suitable purity no stain will appear on the test paper.

Although the practice of "bluing"

white sugars to enhance their whiteness has been discontinued to a great extent, at least in the United States—and I doubt if it has been practiced here in the past ten years—;t may happen that a blued sugar will find its way to your stock room. In that event a solution of the sugar may reveal the presence of a "bluing agent." At any rate the test for sulphites may be applied and if ultra-marine (containing sulphur compounds) has been used this will be detected.

All of the tests outlined so far have been of a simple nature, and that for a purpose. There are many users of sugar who will not have in their possession even the meager assortment of laboratory apparatus required for the application of several of the tests for which instructions are given. In view of the previous statement what comes next may seem superfluous. However, it should be of interest in so far as it will demonstrate the practicability of differentiating "refined sugars," one from the other.

Examination of sugar solutions in ultra-violet light and in Wood's light (filtered rays of the mercury vapor lamp) are methods capable of revealing very minute differences of quality. Ash percentage of the odor of 0.001 per cent being an example. Also traces of invert sugar are made evident.

The electrical conductivity of a sugar solution is often used to measure its "ash" content.

The "Dye Test" for estimating colloids has a limited application in the case of highly refined sugars. This test requires a form of ultramicroscope and is dependent upon the neutralization of small electrical charges carried by the "colloidal material" with which a sugar solution may be contaminated. The neutralization is effected by adding small quantities of a dye solution (hence the name). The dye carries an electrical charge of opposite sign. Observing the migration of the charged particles toward either the anode or cathode of the cataphoresis cell in which the solution is observed, the point at which no migration of particles can be observed is the "end point." The amount of dye necessary to effect neutralization when following a standard procedure is a measure of the colloid content.

Light absorption curves plotted from observations of light absorption at varying wave lengths, surface tension measurements and a host of other physical and chemical measurements have been applied by a large number of investigators throughout the sugar producing centers of the world in order to improve the technology of sugar production and produce the best possible product. A product which at present stands out as the cheapest organic chemical of highest purity that is produced in millions of tons. Is this a tribute to the application of *Science?*

In bringing this, our second "Chat," to a close, let me remind you that modifications of any tests or analytical procedures mentioned or outlined so far, or that will appear later, can be made so that "raw materials" other than sugar can be intelligently evaluated. And this to your ultimate profit.

Watch for the next installment in this interesting series on "Sugar."

TRADE MARKS *for* Registration

THE following list of trade-marks published in the Patent Office Gazette for the past month, prior to registration, is reported to The Manufacturing Confectioner Publishing Co., by Mason, Fenwick & Lawrence, Patent and Trade-Mark Lawyers, Woodward Building, Washington, D. C.

Manufacturers and dealers in candies, confectionery and baking products who feel that they would be damaged by the registration of any of these marks are permitted by law to file within thirty days after publication of the marks a formal notice of opposition.

CHEF, sugar, honey, chocolate, cocoa, malted milk and malted milk powders, nut butters and salted, whole, ground and sliced nuts, milk, wheat flour, rye flour, alimentary paste products, bread, rolls, cookies, pies, pastry cones, candy and sweetmeats embodying combinations of candy and pastries, chewing gum, bases for making icings, and puddings. Use claimed since April 1, 1902, by The Berdan Company, Toledo, Ohio.

Picture of Chef, sugar, honey, chocolate, cocoa, malted milk and malted milk powders, nut butters and salted, whole, ground and sliced nuts, milk, wheat flour, rye flour, alimentary paste products, bread, rolls, cookies, pies, pastry cones, candy and sweetmeats embodying combinations of candy and pastries, chewing gum, bases for making icings, and puddings. Use claimed since April 1, 1902, by The Berdan Company, Toledo, Ohio.

CHEF and picture of chef, sugar, honey, chocolate, cocoa, malted milk and malted milk powders, nut butters and salted, whole, ground and sliced nuts, milk, wheat flour, rye flour, alimentary paste products, bread, rolls cookies, pies, pastry cones, candy and sweetmeats embodying combinations of candy and pastries, chewing gum, bases for making icings and puddings. Use claimed since April 1, 1902, by The Berdan Company, Toledo, Ohio.

SPARK PLUGS, candies of all kinds. Use claimed since 1911 by Dilling & Co., Indianapolis, Ind.

HIGH SCORE, wheat flour. Use claimed since May 1, 1932, by Blish Milling Co., Seymour, Ind.

BISCUITS PERNOT, cakes, biscuits, crackers, candies and chocolates. Use claimed since 1869, by Manufacture Dijonnaise Des Buicuits Pernot, Societe Anonyme, Dijon, France.

COLNANA, frozen confections. Use claimed since June 29, 1932, by Samuel Bucher, Milwaukee, Wis.

CARNEY'S BILLY BOY, candy. Use claimed since July 15, 1931, by D. D. Carney, doing business as D. D. Carney Candy Co., Huntington, W. Va.

HAVA-SMACK, confections composed of nuts, cereals and syrups. Use claimed since March 1, 1932, by Earle C. Bennett, doing business as Hava-Smack Co., West Springfield, Mass.

TEE UP, candy. Use claimed since April 10, 1932, by Bunte Brothers, Chicago, Ill.

FRANKE'S HONEY-POPCORN and design, honey flavored popcorn. Use claimed since 1920 by Peter Franke, East Haven, Conn.

DAIRYLEA, chocolate milk, buttermilk, etc. Use claimed since Feb. 15, 1931, by Dairymen's League Co-operative Association, Inc., Utica and New York.

Theodore Gottmann

Theodore Gottmann, a retired pioneer candy manufacturer, died at his home after a lengthy illness. Mr. Gottmann was born in Germany and came to Chicago in 1888. A few years later he helped establish the confectionery company of Gottmann & Kretchmer. He retired a year ago. Mr. Gottmann was prominent in German and Masonic affairs. Surviving him are six children—Theodore M., Adelheid, Fred, Neda, Elfa, and Ernst. Funeral services will be held at 6208 North Western avenue Saturday.

Mountains of sugar beets—several blocks long—at Fort Morgan, Colorado, soon to be converted into beet sugar

An Essential and *Growing* Industry

. . . . . declares Mr. Fiske in stressing the importance of the position now occupied by the American beet sugar industry and its relation to the economic structure of the country

By JED FISKE
Secretary U. S. Beet Sugar Association

PREPARATIONS being made for the opening of eight more American sugar factories than were in operation last year indicate that the beet sugar industry in the United States is to continue an important source of the nation's sugar supply. In all some 74 plants are expected to be operating at capacity during the winter sugar manufacturing period, providing assurance that an ample supply of the commodity will be available during the coming year at fair prices.

As reports on the extent of the beet crop provide sound basis for predictions of a harvest in excess of 8,000,000 tons, it is believed that beet sugar production for the year will be greater than 1,000,000 tons. In view of the fact that similar efforts have been made in times past when domestic sugar may be said to have been dominating the market to the detriment of foreign producers, it is only natural that this outlook for beet sugar should inspire attempts aimed at minimizing its economic importance. Because it is the second largest sugar-consuming industry, the confectionery trade is not infrequently regarded as a logical audience for such propaganda.

Assured of uniform purity, the exact source of the sugar he requires for his product is of little concern to the candy manufacturer. He should be interested, of course, in promoting the welfare of the country in which he operates, but whether or not his ingredients come from Cuba, Colorado or Java obviously has no direct bearing on his profit and loss sheet. Only when variations of price and supply are involved does the matter merit his serious consideration. But until he has studiously weighed the factors that affect these all important items, he should be wary of economic preachments which advocate dependence upon a single source of supply.

The beet sugar industry is an essential part of a balanced economic structure. It has made substantial contributions to the welfare of all countries in which it has been established. The United States is no exception. Developed here under the sponsorship of the federal government to increase agricultural productivity and to assure the people of the United States an adequate supply of a vital commodity, it has gained during the course of recent decades the right to be termed an essential industry.

The sugar beet is now widely regarded as a keystone of modern scientific agriculture. It at once improves the farmer's soil, enables him to diversify crops and tends to release the American consumer from dependence upon the foreigner for a major item in the national food supply. One of the greatest of soil stimulators, the sugar beet also is a guaranteed cash crop, rich in by-products and capable of widespread expansion, due to the fact that it may be grown successfully and profitably over a wide area.

Although the sugar beet was introduced to America almost a century ago, it did not become a true commercial crop until after 1890. At that time the Department of Agriculture recognized its potentialities and began advocating its culture. Scientific data regarding methods of cultivation was distributed and capital was urged to invest in the construction of sugar extraction factories. Subsequent developments have demonstrated that the opinions which motivated this governmental action were basically sound.

Sugar Beet Acreage on the Increase

Farmers turned to beet culture in the hope of cash returns. They were not disappointed. Since 1911 they have received an average annual gross return from their beet harvests of approximately $50,800,000. In the course of the last 21 years the sugar beet has placed a total of $1,066,797,000 in the pocketbook of the American farmer. That this return has yielded a profit over and above the costs of production is convincingly evidenced by the increase in sugar beet acreage. In 1929 beets were grown on 693,041 acres; in 1930 on 794,181 acres; this year at east 813,000 acres are reported to be under cultivation.

Moreover, Department of Agriculture investigations show that the yield per acre is steadily increasing. In 1901 5.87 tons per acre was regarded as a creditable harvest. Last year the crop was in excess of 11 tons to the acre. There is no reason why sufficient sugar beets cannot be grown in this country to meet all domestic sugar demands. Governmental experiments indicate that there are at least 274,000,000 acres ot land within the borders of the United States suitable for beet growing. A single crop from such an area would yield sufficient sugar to satisfy the world's needs for two decades.

It must be admitted that the task of obtaining suitable workers to assist in cultivating and harvesting has mitigated against the expansion that the possibilities of the sugar beet merit. The work is arduous, and in periods when the movement of labor has been away from the farm toward industrial centers this has presented disadvantages. But in the present unemployment crisis there is a growing recognition of the value of agricultural activity that offsets seasonal slacks in industrial lines. Providing more labor hours per acre than any other crop, the sugar beet is a potential solution to many unemployment difficulties. This year it is estimated that it will afford work for at least 190,000 farmers and farm laborers in the beet fields and for approximately 8,900 wage-earners in the factories. In addition railway workers will benefit as approximately 23 per cent of the industry's income will be dispensed in the payment of freight charges. More than 600,000 freight cars will be required to move the crop, while 40,000 cars will be needed for the distribution of the sugar.

RECENTLY we published an article in The MANUFACTURING CONFECTIONER which raised the question "Do We Face a Sugar Shortage?".

The author's conclusion that we do was based upon certain factors which he discussed. One of these was that the domestic beet sugar indusry had reached the limit of its expansion.

Mr. Fiske, Secretary of the U. S. Beet Sugar Association does not agree with this statement and offers the accompanying article in refutation.—Editor.

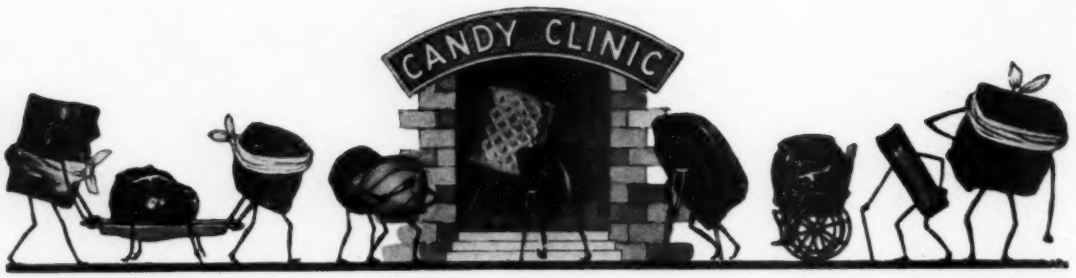
Industry Affords Innumerable Advantages

Thus it may be seen that the advantages to the nation of the sugar beet industry are numerous. It provides farmers with a profitable crop; increases the productivity of the soil; serves as an employment buffer; contributes measurably to railroad revenue, and is capable of extraordinary expansion. But despite all this, the consumer may still be justified in discounting its importance. For him the bearing the industry has on the price of the sugar he buys is the primary factor. The answer is easily ascertainable.

A careful study of the conditions which brought about the high sugar prices of 1920 shows conclusively that fair prices are dependent upon domestic supply. Domestic competition has always been and of necessity will continue to be severe, not only between the different branches of the industry but among the various refiners. Once the domestic supply is exhausted, however, the market is easily victim to foreign manipulation. in 1920 when raw Cuban sugar sold for 23 cents a pound, the average price paid for beet sugar, as long as it was available, was only

(*Continued on page* 52)

Beet Sugar storage room



The Candy Clinic is conducted by one of the most experienced superintendents in the candy industry. Each month a number of samples of representative candies are picked up at random. Each sample represents a bona-fide purchase in the retail market so that any one of these samples may be yours.

This series of frank criticisms on well-known, branded candies, together with the practical "prescriptions" of our clinical expert, are exclusive features of the M. C.

Next month we will discuss Cordial Cherries and Panned Goods.

Salted Nuts *and* Chewey Candies

Code 10A 32

Maple Chews—1 Lb.—35c

(Purchased in a department store, Chicago, Ill.)

Appearance of Piece: Good. Piece is a maple flavored chew wrapped in printed wax paper.
Texture: Pieces mostly grained.
Taste: Fair.
Remarks: The formula of this piece needs checking up for graining. Flavor is not strong enough.

Code 10B 32

Butterscotch Chews—1 Lb.—29c

(Purchased in a department store, Chicago, Ill.)

Appearance of Piece: Good. Each piece wrapped in printed wax paper.
Color: Too dark.
Texture: Good.
Taste: Fair.
Remarks: This piece is good eating but does not have a strong enough butter taste.

Code 10C 32

Caramel Chews—1 Lb.—25c

(Purchased in a department store, Chicago, Ill.)

Appearance of Piece: Good. Piece is made of caramel with a coconut paste center, each piece is wrapped in plain wax paper.
Color: Good.
Caramel: Good.
Cocoanut Center: Good.
Taste: Good.
Remarks: This is a good eating caramel chew.

Code 10D 32

Assorted Chews—1 Lb.—15c

(Purchased in a department store, Chicago, Ill.)

Appearance of Pieces: Good. Assorted taffy chews, chocolate, peach and mint, wrapped in colored printed wax paper.
Colors: Good.
Texture: Good.
Taste: Good.
Remarks: These chews are of good quality and reasonably priced.

Code 10E 32

Butterscotch—1½ Oz.—5c

(Purchased in a fruit store, Boston, Mass.)

Appearance of Package: Good. A green checkered box printed in red and black.
Color: Good.
Texture: Partly grained.
Taste: Fair, a trifle rancid.
Remarks: This butterscotch is not up to standard. No doubt the goods are old and have gone through the hot weather.

Code 10F 32

Fruit Nut Chew—2¼ Oz.—5c

(Purchased in a railroad depot, Boston, Mass.)

Appearance of Package: Good. Five pieces of wrapped nougat, put in a boat and wrapped in transparent cellulose. Nougat contained roasted coconut, colored gums and raisins.
Color: Good.
Texture: Good.
Taste: Good.
Remarks: This is a good eating nougat for this priced goods.

Code 10 G 32

Scotch Toffee—10 Pcs.—5c

(Purchased in a retail store, San Francisco, Cal.)

Appearance of Package: Good. Green printed boat, each piece wrapped in brown printed wax paper.
Texture: Good.
Taste: Good.
Remarks: This is a good eating piece but high priced for this sized package.

Code 10H 32

Caramel and Figs—1 Lb.—39c

(Purchased in a drug store, Boston, Mass.)

Appearance of Package: Good. Silver and white tray, transparent cellulose wrapper with lace design printed in gold and blue. Candy is made of caramel roll filled with figs. Each piece is wrapped in plain wax wrapper.
Color: Good.
Texture: Good.
Taste: Rancid. Candy could not be eaten.
Remarks: This candy was unfit to eat. The idea of the package is good as is the candy. The caramel was not made properly, or perhaps the fig was not cooked enough. Suggest this piece be checked up. It had become so rancid it could not be eaten.

Code 10I 32

Sour Krout Chews—1 Lb.—29c

(Purchased in a department store, Chicago, Ill.)

Appearance of Pieces: Good. Caramel kiss and coconut wrapped in wax paper printed in red.
Texture: Good.
Taste: Good.
Remarks: This is a good eating caramel and coconut chew.

Code 10J 32

Salted Almonds—1 Oz.—5c

(Purchased in a drug store, Chicago, Ill.)
Appearance of Package: Good. Transparent cellulose bag, board printed clip.
Roast: Good.
Salt: Good.
Texture: Good.
Taste: Good.
Pieces: None.
Remarks: This is a good salted almond and reasonably priced.

Code 10K 32

Salted Spanish Peanuts—No weight—5c

(Purchased in a drug store, Chicago, Ill.)
Appearance of Package: Good. Transparent cellulose bag used. no name or weight.
Roast: Good.
Salt: Good.
Texture: Good.
Taste: Good.
Pieces: None.
Remarks: This is a good package of Spanish peanuts. Suggest name and weight be printed on bag to avoid trouble.

Code 10L 32

Salted Jumbo Peanuts—2¼ Oz. —5c

(Purchased in a drug store, Chicago, Ill.)
Appearance of Package: Good. Printed transparent cellulose bag.
Roast: Good.
Salt: Good.
Texture: A trifle salt.
Taste: Old.
Pieces: About 50%.
Remarks: These peanuts were not up to standard.

Code 10M 32

Salted Cashew Nuts—No weight—5c

(Purchased in a drug store, Chicago, Ill.)
Appearance of Package: Good. Plain transparent cellulose bag. No name or address.
Roast: Good.
Salt: Good.
Texture: Good.
Taste: Good.
Pieces: All.
Remarks: This is a good eating cashew. Suggest name and weight be printed on bag to avoid trouble.

Code 10N 32

Assorted Salted Nuts—1 Lb.—$1

(Purchased in a drug store, Boston, Mass.)
Appearance of Package: Good. White and black printed tin box. Neat, different and attractive.
Appearance of Tin on Opening: Very good. Nuts are put up in a moisture-proof cellophane bag. Box has a liner.
Roast: Good.
Texture: Good.
Salt: Good.
Taste: Good.
Pieces: Very few.
Assortment: Almonds, cashews, pecans, filberts.
Remarks: This can of salted nuts is one of the best the Clinic has examined this year. The package was well planned and well put up.

Code 10O 32

Salted Almonds—½ Oz.—5c

(Purchased at a drink stand, N. Y. C.)
Appearance of Package: Good. Cellophane bag, board printed clip.
Roast: Good.
Salt: Good.
Texture: Good.
Taste: Good.
Pieces: None.
Remarks: These are good almonds but a trifle high priced.

Code 10P 32

Panned Peanuts—No weight—5c

(Purchased at a drink stand, N. Y. C.)
Appearance of Package: Small for 5c.
Color: Good.
Texture: Good.
Panning: Good.
Taste: Good.
Remarks: These are good panned peanuts but are high priced. Trouble can be expected when no name or weight is printed on bag.

Code 10Q 32

Salted Almonds—½ Oz.—5c

(Purchased on a ferry boat, San Francisco, Calif.)
Appearance of Package: Good. Printed wax paper bag with board top clip.
Color of Roast: Good.
Texture: Fair; nuts were soft.
Salt: Good.
Taste: Old, slightly rancid.
Pieces: None.
Remarks: These almonds are of good quality but were not in good condition, maybe old.

Code 10R 32

Assorted Salted Cashews—⅞ Oz. ——5c

(Purchased on a ferry boat, San Francisco, Calif.)
Appearance of Package: Good. Wax printed bag, board clip on top.
Color of Roast: Good.
Texture: Fair, slightly soft.
Salt: Good.
Taste: Fair, old.
Pieces: Mostly old.
Remarks: This bag of nuts is not up to standard.

Code 10 S 32

Salted Peanuts, Almonds and Cashews—1 Oz. or Over—5c

(Purchased at a candy stand, San Francisco, Calif.)
Appearance of Package: Good. Wax printed bag, transparent cellulose window. Printed in yellow and green.
Color of Roast: Good.
Texture: Fair; not brittle enough.
Salt: Good.
Taste: Old and slightly rancid.
Pieces: All except Spanish peanuts.
Assortment: Mostly peanuts.
Remarks: This bag of nuts is not up

to standard, roasting is too light, nuts are not tasty.

Code 10T 32

Assorted Salted Nuts—2 Oz.—10c

(Purchased in a drug store, San Francisco, Calif.)

Appearance of Package: Good. Transparent cellulose bag, printed, white board clip.
Color of Roast: Good.
Texture: Fair; not brittle enough.
Salt: Good.
Taste: Good.
Pieces: None.
Assortment: Good; almonds, peanuts, cashews, Brazils, pecans and walnuts.
Remarks: This bag of nuts was of good quality but not brittle enough. This may be caused by goods being old.

Code 10U 32

Salted Jumbo Peanuts—2 Oz.—5c

(Purchased at a newsstand, Boston, Mass.)

Appearance of Package: Good. Printed cellophane bag used.
Roast: Good.
Salt: Good.
Texture: Good.
Taste: Good.
Remarks: This is a good bag of salted jumbo peanuts.

Code 10V 32

Salted Spanish Peanuts—½ Oz.—5c

(Purchased in a retail store, Boston, Mass.)

Appearance of Package: Good. Glassine printed bag used.
Roast: Good.
Salt: Good.
Texture: Good.
Taste: Good.
Pieces: None.
Remarks: These peanuts were of good quality but a trifle high priced.

Code 10W 32

Salted Almonds—1 Oz.—10c

(Purchased in a drug store, Boston, Mass.)

Appearance of Package: Good. Transparent cellulose bag, cardboard clip on top.
Roast: Too brown.
Salt: Good.
Texture: A trifle hard.
Taste: Good.
Remarks: These almonds were roasted too much. Poor eating.

Code 10X 32

Chop Suey—8 Ozs.—19c

(Purchased in a railroad depot, Boston, Mass.)

Appearance of Package: Good. Tall printed can used for container. This candy is made up as a brittle containing cocoanut, popcorn and peanuts.
Appearance of Goods on Opening of Can: Good.
Texture: Good.
Color: Good.
Taste: Very good.
Remarks: This is good eating candy and well made. The container is neat and attractive. At the price this package ought to be a good seller.

Code 10Y 32

Salted Virginia Peanuts—1 Lb.—8c

Appearance of Package: Good. Printed glassine bag tied with cord.
Roast: Good.
Salt: Good.
Texture: Good.
Taste: Good.
Remarks: These peanuts were not graded for size but were of good quality and cheaply priced.

DUE to limited space, it is possible to include only a cross section of the goods available under the different types and classifications of candies brought to the Candy Clinic each month for examination. Partiality and discrimination play absolutely no part in our selections. Lesser known merchandise is sometimes given preference over merchandise that has already established itself favorably in the eyes of the consumer, and to that extent only can we be considered discriminatory.

Bearing this fact in mind it is evident that the market holds many excellent confections which never reach the Candy Clinic for examination. Such being the case, any opinion we might express in these columns as to the superiority or inferiority of any item analyzed, is in no sense a fair basis for comparison with any of the many other confections of the same type which do not happen to be among the items examined at that particular time. —Editor.

Code 10Z 32

Sweet Chocolate Bar—8 Ozs.—10c
Sweet Chocolate Bar with Raisins—8 Ozs.—10c
Sweet Chocolate Bar with Raisins and Peanuts—8 Ozs.—10c

(Purchased in New York City)

Appearance of Bars: Very good. The wrappers on these bars are neat and attractive and different.
Color of Chocolate: Good.
Gloss: Good.
Moulding: Good.
Texture: Good.
Taste: Good.
Remarks: These bars are of exceptional value at the price of 10c. They are without doubt one of the finest eating bars of this kind on the market today. The chocolate is good eating and of good quality for this priced goods.

Code 10Aa 32

Coffee Chews—5 Ozs.—25c

(Purchased in a retail store, San Francisco, Calif.)

Appearance of Package: Fair. Plain printed folding box, each piece wrapped in gold foil.
Color: Good.
Texture: Good.
Flavor: Very good; coffee.
Remarks: This piece is of good quality. Flavor of coffee is one of the best the Clinic has come across for some time.

Code 10Bb 32

Assorted Chews—5 Ozs.—25c

(Purchased in a retail store, San Francisco, Calif.)

Appearance of Package: Fair. Plain white printed folding box. All pieces wrapped in wax paper.
Colors: Good.
Texture: Good.
Flavors: Good.
Assortment: Good.
Remarks: These chews are of very good quality and well made. Flavors were exceptionally good as was the workmanship.

Code Cc 32

Rum and Butter Toffee—10 Pcs.—10c

(Purchased in a retail store, San Francisco, Calif.)

Appearance of Package: Good. Printed transparent cellulose bag, each piece wrapped in red foil.
Texture: Good.
Taste: Had a rancid taste.
Remarks: This toffee is high priced and not up to standard in quality.

Code 10Dd 32

Caramel Chews—7 Ozs.—10c

(Purchased in a railroad depot, Boston, Mass.)

Appearance of Package: Good. Wrapped caramels put in a cellophane bag, red seal on bag, tied with grass ribbon.
Color: A trifle too dark.
Texture: Fair.
Taste: Good.
Remarks: This is a good package of caramels at the price. Suggest the formula be looked over as piece chewed too much and was tough.

Code 10Ee 32

Salt Water Chews—3 Ozs.—10c

(Purchased in a drug store, Boston, Mass.)

Appearance of Package: Good. Large transparent cellulose bag with printed board clip on top. Salt water taffy wrapped in different colored wrappers.
Colors: Good.
Texture: Too hard.
Flavors: Fair.
Taste: Fair.
Remarks: This salt water taffy is cooked entirely too high; flavors could be better. It is high priced for this type of candy.

Code 10Ff 32

Chocolate Covered Caramel Stick—½ Oz.—1c

(Purchased at a candy stand, N. Y. C.)

Appearance of Piece: Good. Foil printed wrapper.
Coating: Good for this priced goods.
Center—
Texture: Good.
Taste: Burnt.

(*Continued on page 38*)

Eric Lehman Comments on

Packaging of Nutmeats

SALTED nuts and chewey candies were examined in the clinic this month; each group, with few exceptions, measuring up quite well in quality and providing a wide variety in types of packages.

During the past year the salted nut business has suffered a considerable set-back on account of the decrease in sales generally of the higher-priced confections. It is no secret that the prices of salted nuts are in the class of high-priced candies and that the latter have had a definite set-back the past year also. In order to meet the situation, a number of the larger nut manufacturing houses have reduced the prices of their salted nuts from $1.50 per pound to $1.25 the pound. This applies to bulk and packaged nuts. Bag nuts other than peanuts have likewise been reduced.

A year or two ago salted nuts in bags and tin boxes were generously displayed in every drug store, confectionery store, and all other types of retail outlets where candy and other foods are sold. But today fewer nut packages are on display in these same places of business.

The leading sellers today are the large bars, boats, and other pocket packages of chocolates and candies priced at five cents. In some sections, however, the new large-size penny pieces are competing for first place among the fast movers. Ten-cent sellers on the confectionery counters are moving very slowly. This competition with smaller units of sale in the candy line naturally affects the 10-cent nut package business. We find that while there are a few bags of nuts selling at 5 cents the amount offered is usually too small to entice the consumer.

We found in this month's clinic that the quality and grade of nuts used for salting was in most cases good. Roasting and salting was well done, as was the packaging.

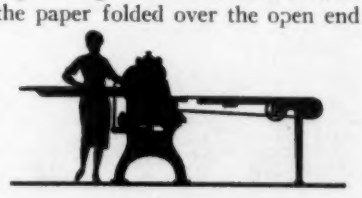
The types of containers used in packaging salted nuts include all the styles in each kind of material available, such as wax paper bags, Cellophane bags, cardboard boxes and tin containers of various shapes and sizes. The package used obviously depends upon the merchandising plan—the units of sale and class of trade to which the item is offered.

Striking lithographed tin containers, as well as paper boxes, are being used for high-priced packages of a pond or more. A new thing in nut in fancy nut assortments is the open-top box with dividers or individual containers for each assortment, while the whole package is wrapped in Cellophane, with the contents visible.

There are three distinctive styles of bags, particularly the Cellophane bags, used in packaging the popular-priced units of salted nuts. They are: (1) Envelop Bags, (2) Bellows Bags, (3) Satchel Bottom Bags.

The one or two ounce units, selling at 5 cents, 10 and 15 cents, are usually packed in flat envelop bags which make the nuts spread out in full view. This is an important factor when the quantity is small. As the units increase in size to larger bags, the bellows bags and satchel bottom bags commonly in cylindrical shape are used. The cylindrical bags in half and one-pound sizes, are usually flat at both ends and sealed with a label on top.

The design of the labels and closures has much to do with the attractive appearance of the packages. Some bags are printed, some have the gummed labels, while others have the label on the flag closure. The flag type of closure, because of its neatness and security, is increasing in usage. This is the kind with the paper folded over the open end of the bag and fastened with an eyelet or wire staple.



In packaging salted nuts in Cellophane bags, if the packing is to be done at a central point and the merchandise shipped distances, double bags should be used. Otherwise the single bag will serve. When Cellophane is used in packaging salted nuts, it should be the moisture-proof type.

In examining the chewy candies we find all kinds of 5-cent packages dominating the selections. Like the bars, which have been made larger, the pocket packages of chewy candies have been enlarged. The numbers of pieces per package have been increased, and in many cases the pieces themselves have been made larger.

Caramels, as usual, are the most abused in this class of candy. Some are made of the rankest raw materials and scrap, and, in fact, some examined at the clinic could not be eaten at all. The texture of some caramel pieces was like leather. Caramels can be made very cheaply and still be of fair quality, and this should be regarded when considering the all-important factor of repeat business.

On the whole, the chewy candies were of good quality and well presented.

Loft's Now Operating in Detroit

ARRANGEMENTS were recently completed by Loft's, Inc., whereby this company will take over the operation of the candy departments of the 60 Economical-Cunningham Stores in Detroit, Michigan. Considered among the finest of their kind in the country, these stores will feature Loft's candies exclusively in their candy departments.

Warehouse space has been secured in Detroit and it is the company's plan temporarily to ship all candies direct from the Loft plant in Long Island to the Detroit warehouse from which they will be distributed to the various stores.

Plans for the establishment of a factory in Detroit for the manufacture of Loft candies are at present under way. According to reports this plant, which will employ about 150 people, is expected to be ready for operation about the middle of November.

With this addition to their chain of retail outlets, Loft, Inc., now controls over 200 such stores in various parts of the country.

The Candy Clinic

(*Continued from page* 36)

Remarks: This is a good sized piece for a 1c seller but quality is not up to standard.

Code 10Gg 32

Butterscotch Chews—3 Ozs.—5c

(Purchased in a candy store, Richmond, N. Y.)

Appearance of Package: Good; 15 pieces wrapped in wax paper, put in a boat, cellophane wrapped.
Color: Good.
Texture: Good.
Taste: Good.
Remarks: This is one of the largest packages of this kind examined by the Clinic this year. The quality is very good for this priced goods.

Code 10Hh 32

Assorted Salted Nuts—No weight—5c

(Purchased in a cigar store, Boston, Mass.)

Appearance of Package: Good. Transparent cellulose bag (no printing).
Color of Roast: Good.
Texture: Good.
Salt: Good; very brittle.
Taste: Good.
Pieces: Few.
Assortment: Almonds, filberts, pecans, cashews, Brazils.
Remarks: These nuts were very good looking and tasting. To avoid trouble suggest the name and address and weight be printed on the bag.

Code 10Ii 32

Salted Almonds—No weight—5c

(Purchased in a cigar store, Boston, Mass.)

Appearance of Package: Good. Transparent cellulose bag.
Color of Roast: Good.
Texture: Good.
Salt: Good.
Taste: Good.
Pieces: None.
Remarks: These are very fine salted almonds.

Code 10Jj 32

Salted Spanish Peanuts—8 Ozs.—10c

(Purchased in a drug store, Boston, Mass.)

Appearance of Package: Good. Printed transparent cellulose bag, sealed top and bottom.
Roast: Good.
Texture: Good.
Salt: Good.
Taste: Good.
Pieces: None.
Remarks: These are one of the finest salted peanuts examined by the Clinic this year.

Code 10Kk 32

Caramels—4 Ozs.—5c

(Purchased at a candy stand, N. Y. C.)

Appearance of Package: Good. Vanilla and chocolate caramels, 8 pieces, each wrapped in wax paper.
Color: Good.
Texture: Good.
Taste: Good for this priced caramels.
Remarks: This is an exceptionally large package of caramels at the price of 5c and of fair quality.

Code 10Ll 32

Pinwheels—5 Pcs.—5c

(Purchased at a candy stand, N. Y. C.)

Appearance of Package: Good. Five pieces of vanilla caramel whirls in a boat, wrapper of transparent cellulose.
Color: Good.
Texture: Too tough.
Taste: Bad.
Remarks: This is a very bad eating piece of candy, the cheapest kind of raw materials being used. No name or weight is printed on the wrapper or boat.

Code 10Mm 32

Assorted Wrapped Caramels—1 Lb.—15c

(Purchased in a F. W. Woolworth Store, N. Y. C.)

Colors: Good.
Texture: Fair.
Flavors: Fair.
Remarks: Too much can not be expected in caramels at the above price.

Code 10Nn 32

Caramel Pop—1¾ Ozs.—2c

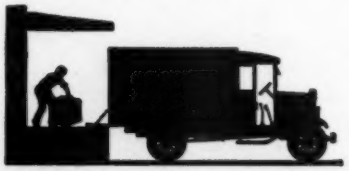
(Purchased at a candy stand, N. Y. C.)

Appearance of Package: Good. Glassine printed wrapper.
This piece is a chocolate coated marshmallow bar.
Coating: Fair.
Marshmallow: Fair.
Remarks: Considerable trouble can be looked for when misbranding goods. Printed on the wrapper was Caramel Pop, contained above Marshmallow Bar.

Code 10Oo 32

Assorted Chocolates—1 Lb.—No price

Appearance of Package: Fair, cheap looking.
Box: Two-layer, full telescope, wrapped in white wax paper. Color silver and blue printed seal in black and white
Appearance of Box on Opening: Fair. One piece broken.
Chocolate Coatings: Milk and dark.
  Gloss: Fair, partly gray.
  Color: Good.
  Strings: Good.
  Taste: Fair.
Centers—
  Chocolate Caramel: Had a scrap taste.
  Nougat: Fair.
  Maple Pecan Cream: Good.
  Ginger Cream: Good.
  Jelly: Good, but flavor could not be made out.
  Marshmallow Jelly: Good.
  Chocolate Nut Fudge: Good.
  Orange Cream: Good.
  Vanilla Walnut Cream: Good.
  Cream Brazil: Good.
  Raspberry Cream: Good.
  Cream Pineapple: Good.
  Molasses Cocoanut: Good.
  Peanut Taffy: Good.
  Peppermint Cream: Good.
  Filbert Cluster: Good.
  Vanilla Fudge: Good.
  Vanilla Buttercream: Short and dry.
Milk Chocolate Centers—
  Chip: Good.
  Walnut: Good.
  Nut Cluster: Good.
  Vanilla Caramel: Good.
  Nut Chew: Good.
  Cordial Cherry: Piece broken, cherry dry, no cordial.
Assortment: Good.
Remarks: The bottom layer had about six broken pieces, all run together; these pieces could not be made out. Suggest a partition be used in the bottom layer to prevent pieces from being crushed. Box was at least one-quarter of an inch too high. Boxes of this kind of chocolates are selling at 49c the pound.



The Martin Dawson Company

THE Martin Dawson Company of Chicago has under way negotiations to merge with another well known confectionery manufacturer, it is rumored. Pending the completion of these plans we understand that filling of orders by The Martin Dawson Company has been suspended. It is expected that resumption of operations will take place in the course of the next several days. It has been known that The Martin Dawson Company was seeking new capital with a view to expansion and the proposed new arrangement would serve this end.

The Martin Dawson Company expects to make an important announcement very shortly.

E. B. Hutchins President of Diversey Corporation, Chicago

Mr. Hutchins, formerly executive head of the Bonita Company, Fond du Lac, is now president of the Diversey Corporation, manufacturers and distributors of chemical products. This connection brings him back into the chemical field which he left to enter the candy industry in 1909.

Mr. Hutchins was always active in the affairs of the National Confectioners' Association serving as president in 1930 and 1931.

New Member of Executive Committee of N. C. A.

By the unanimous approval of the members of the Executive Committee, Mr. Walter H. Johnson, President of the Walter H. Johnson Candy Co., of Chicago, has been elected to fill the vacancy on the Executive Committee caused by the death of Mr. James H. Wilson.

•AS SPOKESMAN for his group in candy distribution, Joe Jobber presents in this column substance of interviews with leading jobbers on points of interest to manufacturers.

Establish Jobber Qualifications

LAST month we discussed in these columns the reactions of the jobbers toward *price discrimination* which manufacturers are practicing by giving the syndicates special discounts, thus causing a distressing situation which is increasing the distribution troubles of the jobber. Another well-known problem working hardship on the jobbers is due to a decided *lack of discrimination* by the manufacturers in selling to anyone who has a few dollars and wants to call himself a candy jobber.

How can the manufacturers of this industry continue to be indifferent to existing practices which they know are detrimental to the health and success of the wholesale group which is distributing 53.8 per cent of their total annual volume? The candy jobbing field is in a deplorable condition at the present moment and manufacturers the country over are doing little or nothing to get at the bottom of the jobber's troubles and help get him on his feet so he can do a more satisfactory job of candy marketing for them.

It's Up to the Manufacturers

Why don't the manufacturers as a group realize that their distribution machinery is out of adjustment —that the jobbers, who serve as the marketing outlet for more than half of the industry's volume, are not making any money because of two groups of price-cutters (the chains and unqualified jobbers) which the manufacturers are s u p p o r t i n g! Why don't they realize that the manufacturers will continue to have grief with the jobbers until they as a group stop their own practices which fundamentally are a detriment to their wholesalers!

The industry has known for years that it should establish an industry consciousness of what a confectionery jobber ought to be. There should be a recognition of certain qualifications a distributor should have in order to merit recognition from the manufacturer as one entitled to wholesale prices.

Qualifications Should Be Flexible

There should be a level below which a man cannot qualify as a candy jobber, and above which he can. Of course it should be a flexible standard and reasonable from both the standpoint of the manufacturer and the jobber.

The following four factors have been suggested as the basis for considering the qualifications of jobbers or other distributors entitled to wholesale prices from the manufacturers:

(1) Financial
(2) Distributing facilities
(3) Merchandising ability and service
(4) Character and reputation.

If manufacturers would adopt some such standard for qualifying jobbers who wish to do business with them and refuse to accept those who are incompetent and do not measure up, it would soon eliminate the undesirable.

There can be no question as to who is undesirable when judged in terms of the above measuring stick of qualifications. These so-called "fly-by-night" jobbers, here today and gone tomorrow, are short on everything—including price. They are notorious for cutting prices below the fair margin a service jobber must have. Thus they establish intolerably low price levels which upset the market throughout an entire section.

The Unqualified Upset the Others

Few jobbers know their costs of operation, and the above-mentioned are especially ignorant of these facts which should control their resale prices. It is estimated that approximately 35 per cent of jobber sales show a loss.

An indictment charging that too many business men are not properly trained, resulting in the failure of 90 per cent of business enterprises in the United States throughout the history of the country, was made at the recent annual meeting of the Chamber of Commerce of the United States by J. H. Tregoe, formerly executive head of the National Association of Credit Men. This has a particular significance in confectionery distribution. Mr. Tregoe said:

"When you sell goods to people not qualified to handle them, you are cluttering up the affairs of business. Would you put a stick of dynamite in the hands of a child? In putting goods in the hands of merchants (or jobbers) not qualified to handle them, you are doing just as dangerous a thing. Last year there were credit defaults in commercial lines which cost the wealth of this country at least $1,200,000,000."

Best for Manufacturers

Presented from the above angle, Mr. Tregoe has made it clear that it is primarily to the manufacturer's best interest to support only qualified, reliable, constructive jobbers.

Some manufacturers maintain, however, that they should protect

(*Continued on page 52*)

Candy Institute President Addresses Retail Druggists

Their aims and interests largely paralell, President Gooch offers assembled druggists the Institute's cooperation

THE accompanying address was that delivered before the National Association of Retail Druggists' Convention at Boston on September 29th by Mr. Joseph Gooch, Jr., President of the Candy Institute of America. The Retail Druggists' invitation to Mr. Gooch to address them was influenced in no small degree by the widespread interest created recently by the decision of the Institute's Package Goods Group to refrain from selling merchandise to manufacturers who in turn resold to their employes, in order that this business might remain open to the retailer. The spontaneous reception accorded Mr. Gooch's remarks by the assembled retailers was convincing proof of their approval of the policy inaugurated by the Institute's members.

WHEN it was suggested that I present to this convention, certain thinking of a group of candy manufacturers believed to be of interest to retail druggists, I accepted and welcomed the opportunity.

I represent a group of approximately 70 of the outstanding candy manufacturers of this country who have created, financed and inaugurated the Candy Institute of America—a corporation organized under New York State laws—a corporation through which these candy manufacturers hope to build public acceptance for a better quality of candy, as well as a better basis for its sale.

The group have a collective dollar volume of approximately $200,000,000 of retail sales, their individual corporate age is over 42 years and their invested collective capital is in excess of $50,000,000.

Whether you want to be or not, *you too are in the candy business;* as you are also in the tobacco, proprietary medicine, soap, cosmetics, prescription and soda business. All of these lines, collectively, are supposed to return to you a profit—and profits are not so good these days.

I am not a retail druggist—never have been—

I am not a candy maker—never have been.

My experience has been in merchandising. I believe I am consumer conscious—my eye is trained to watch one thing only—*PROFIT*. I know of no other justification for your, or this Institute group being in business.

I believe I know the relationship that candy can have from the profit side of your business. I ask your consideration of what I may say on the single basis of profit—*profit to you.*

If we can forget for now that you are here in formal convention—if I can think out loud with you, as a group of men who have been in business many years and have seen its ups and down—its changes and its cycles—if I can be frank and say the things I want to say—such is the way I would like to proceed.

There is nothing in getting the breaks these days. You have to make your breaks, and there is nothing in sitting down wishing for tomorrow or hoping that it is going to be a little brighter. We can be thankful that we are business men in America as against some other countries, and further that business is as good as it is, however good we appraise it.

A Lucrative Part of the Druggist's Business

I make the statement that whether viewed as of 15 years ago, 10 years ago, or today, candy can represent one of the most lucrative parts of your business.

In making this statement, I don't want you to feel that I am trying to sell you anything. You run your own businesses in your own way—and you know your business. There is, however, a very definite point of interest between what we are trying to do and what you are trying to do—so clear—so apparent and so definitely a part of both of us as to permit no argument.

I am not going to submit to you a lot of operating ratios split down into percentages or fractions—to try to theoretically prove the profit range of candy from the standpoint of the retail druggist.

Never mind for now whether the candy business is good or bad. Most businesses are "off." Never mind for now whether your average unit sale of candy is in terms of a penny piece, a five or ten cent bar, 40c pound chocolates or a $2.00 box of very fine candy.

I submit to you that a $1 lb. box of candy or a $1.50 lb. box or more is a very desirable sale from your side. I submit further, that you are not getting enough of these sales at present—and thirdly I submit,

that we are going to try to help to re-build some of this business *for you.*

By comparison—taking the $1 lb. box of candy, you have to make 20 individual sales of 20 packages of cigarettes to get an equal profit—on cigars, you have to make 54 sales (based on a 10c cigar)—or 5 packages of shaving cream—5 of toothpaste—6 of razor blades (figuring a package of five).

Figuring ice cream at 10c an order, you have to serve 14 customers to make the same profit as the $1 lb. box returns. These figures may vary slightly, but in the main they are correct.

Let me dig a little deeper into this matter of candy from your point of view—

I say this matter of candy from *your point of view.* I say further, that the only point of view that counts at this meeting is *yours.* I am not proposing anything for the good of somebody else. Business in its last analysis is a cold matter.

Wherever you are located, you are serving a given community. Wherever you are located, you face competition—today ruthless, destructive, hazardous, profit diluting. The dollar has grown smaller or, put another way, there are not so many dollars.

Again—if candy is desirable merchandise for you to retail—you today face the competition of manufacturing retailers—chains — and others, which competition follows in all lines of business and you are not going to fold up *your* tent—pass out of the picture—letting them serve your community with candy.

Before this Institute was started, I spent 8 months studying, traveling, talking not only with manufacturers, but retailers.

I say to you that—candy is basic merchandise, but it is surrounded by many negative complexes—lack of understanding—lack of consumer consciousness, more I believe, than exists within most industries.

I am told that anyone with a few pounds of sugar and a kettle can go into the candy business and that is its trouble—that candy prices of the better grade are too high anyway—that cheap candy has killed the taste for the better grades—that the candy industry is going to Hell.

A Case of Diminishing Profit

Unquestionably, the profit of the retail druggist has been badly dissipated. Where we have ruthless competition, it follows the course of price reductions. Generally the person who cuts the most knows the least about his costs—kids himself—takes a beautiful licking—drags other retailers down—and all take a licking. In the past two years some of the big fellows, chains included, have not scored the way they hoped to either.

You have the problem of building within your four walls community acceptance for your store, your goods, your service and your prices which at the end of the year you hope will return to you a reasonable profit. Prestige, reputation, honor, and integrity all enter in, but basically your profit has got to come through the turning over of your goods—and Heaven knows you carry plenty of stock to please any community.

I hear much about the "good old days" of 15-20 years ago, from the standpoint of the manufacturer as well as the retailer as affects candy. I hear all these tales about "say it with flowers" having affected candy sales—or some say it's books, or cigarettes, that the boys take a bottle of Scotch to their best girls—some explain that candy isn't served at the bridge table or the dinner table as it was 10 years ago.

We have just completed an investigation in over 900 communities of this country that indicates clearly that the position of candy is just as ingrained in the fibre of this country as ever before. Candy, a *basic product*—if you please a recreation, a joy, a repeater—as long as it is good candy, it invites more.

Today, no one does anything for you—you do it for yourself. No one on the corner of Main and First streets in your city passes you the key to the city and the entree to the finest families in the supplying of their candy wants. You get it because you organize to get it. Profits are insured through the building of tools—sales tools of sharp and penetrating dimensions.

I ask you to accept my statement that candy today, despite the breakdown in price levels, is as firmly fixed in the public mind as ever before in its long and honorable career. If properly organized and intelligently merchandised in your store, candy can and will step forth and deliver to you the profit that it possesses.

Intelligent Thinking Will Lead to Substantial Profits

Now—what druggists themselves have told me about their own competition.

They lack mentality—they are weak in any understanding of operating ratios (I will add a lot of manufacturers to that class too, in not only candy but most industries).

Retailers display candy poorly—they are asleep at the switch (this is what I am told—that their clerks are indifferent and lazy—that they don't go after and create business—they are merely dispensers of whatever the public calls for—*slot machines.*

Bring any 100 retailers together in any line of business—or manufacturers for that part—and you will find these same negatives—some of them justified.

But so far as any broad statement that retail druggists are not alert and alive to profit making—and are not able to follow through a properly determined course—if my contact with retail druggists has been a dependable one—is plain stupidity.

I make six general comments that relate themselves to profit.

(1) There is nothing the matter with the candy business—inferiority complexes to the contrary.

(2) Candy, like everything else, has naturally felt the effect of depression, not in tonnage but in the breakdown of the unit sale price. This thought that candy is going to other retail channels—is moving out and away from the druggist—is absurd, unless you permit it.

(3) The successes in the candy

field, both from the standpoint of the manufacturers and the retailer, in 1933, '34, '35 are being created today. There are retail druggists who today will be laying a foundation to get the lion's share of the fine candy business of their community in 1933 and '35. In all lines of business, the '33 and '35 successes are now being foundationed. This is a day of PLAN. Haphazard thinking is obsolete.

(4) The past two years have seen the introduction of shoddy merchandise in general, and candy in many cases goes into that group.

You may not see it with your toothpastes and your shaving creams, but go into the field of shoes, clothing, hats, general household goods, furniture, trunks, and look them over. R. H. Macy, today, as a matter of trying to evidence to the public that they are safe in buying at Macy's low prices has introduced the Macy Bureau of Standards. Next week the Fifth Avenue Merchants' Association inaugurate in New York a "Quality Week" to try to radiate throughout the country the fact that there is one avenue of this country that stands for quality merchandise.

The public today is changing from "price mindedness" to "quality mindedness." Price has held the field for two years, but the pendulum is swinging back and the manufacturer or the retailer pledged to quality merchandise, related sanely to reasonable price, will have the call.

(5) What the candy industry needs today, basically, is quality candy, and you from your niche and the manufacturers from his niche will each pull himself out and up—in profit and otherwise—on a basis of finer service to the public along the lines of quality merchandise—nothing else.

(6) If you are going to re-create your position in your community on candy to insure the kind of a return to which you are justified—(remember it's profit we are talking about—we are not running a Sunday School) there has got to be aggressive. intelligent, honest, penetrating thinking by you and by us.

Fragileness of Most Group Agreements

Now for a moment, may I try to put what I have said together in more concrete form?

I have never believed in asking anyone to do anything for the good of anybody else, or for the good of an industry.

No one can go far on a czar basis.

You don't get far through loose meetings and meetings are not new to you, as a group. I haven't any doubt that either in your county or in your state, you gentlemen have had many meetings—a course has been determined—you have all agreed—then the first fellow back home has started to do the very things that you all agreed not to do. You tried to establish a "do" and it broke down. It may have been a case of bad faith but I would say it was more likely a reflection of the fragileness of agreements.

Again, I represent 70 of the forward thinking candy manufacturers—only 70 out of 2,000, but these 70 propose collectively to move together toward finer quality and finer things in candy—and in doing so, accomplish some of the "do's" as against the "don'ts"—not through a silly code of ethics, "Pollyanna" platitudes or naive expectations.

And let me say—this group very, very seriously recognize that they are not the "hen that laid the golden egg," but rather they are the manufacturers of candy and their success is absolutely and unqualifiedly contingent upon the success of retailers.

In this Institute we have two groups based on nature of candy—one group of package goods manufacturers—another group of general line.

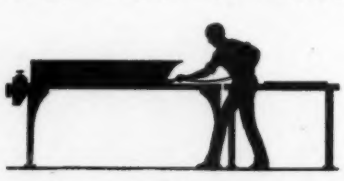
Public Is Quality Conscious

After all is said and done, the public is conscious of quality and poor eating quality candy is not conducive to your best interests or to the best interests of the group I represent or to the public interest.

If we proceed the way we are headed now, I believe that I can assure you a basis of selectivity in candy that can play a more important part in a sane building of your candy profits than anything else that could be done.

Again, the public is the judge. We hope to plead our case before this public with a little more understanding than the other fellow.

This question of a quality program is to be taken very, very seriously. Over 1,000 superintendents of schools and principals of high schools, in over 900 communities of this country have said to us in substance that it could be one of the most forward steps in line with public service ever inaugurated.



May I now take a few minutes on the Package Goods Group of 20 forward thinking manufacturers, and I am through.

$1—$1.25—$1.50 and $2.00 package goods—that part of your candy business that may have slipped—a part of your business that can be made profitable.

This group of 20 manufacturers, whose names will go into the record of this meeting, hope to work with you on the "how" of building more sales on package candy—the "how" of better displays—better understanding by clerks, smarter packaging—contact with your customers, etc., and I say to you very frankly and earnestly that there is great need of this kind of "how" by most druggists.

There are something over 55,000 retail druggists in this country—all will not have the understanding of what we are endeavoring to do. There is a great lack of consumer vision and consciousness with many retailers who call themselves druggists.

But out of our program will come, as we move along, the active, honest, intelligent, enthusiastic support of those druggists who propose to get somewhere—make a business—and take some profit within their respective communities on this matter of high-grade package candy.

I don't like the word "partners" at a convention like this, it sounds like a gesture or ballyhoo.

I know this—we can't work for this group without also working for you.

I feel so deeply on this subject that I would express the hope that this may be the start of some character of affiliation between the Candy Institute of America and the National Association of Retail Druggists—not price fixing, price manipulating, which is nothing but stupid work—but a broad affiliation to our mutual advantage.

The Return Goods Policy

Now let me be more specific.

Several months ago, we worked

out a policy covering a certain subject. Some druggists said it was a left-handed monkey wrench.

I have been told that I would make a mistake if I discussed it at this meeting; but if it is a mistake for me to do so, I will make that mistake deliberately.

One of the first things that we found—one of the most costly practices within this industry—was that of returning goods for credit.

The last goods off the shelf are the goods bought with the understanding of full credit—call it consignment, guaranteeing of sales or anything else you like—the greatest breeder of stale candy and curtailer of fresh that could exist—the greatest contributor toward high-pressure selling by manufacturers' salesmen.

We worked out a Return Goods Policy with this group of 20 manufacturers that has cost them some business because they in turn have had the experience with some retailers of the retailer refusing to buy more merchandise, if the policy was to be followed.

I say to you honestly that our Return Goods Policy, which is now conceded by most druggists, is the soundest, sanest, most constructive move ever made within this industry in line with better service to the public, clearing the decks for the sale of more fresh candy and the curtailment of stale, the clamping down on high-pressure selling—making it possible for the retailer to buy reasonably and the manufacturer to sell sensibly—in line with the building of dependable profits from the druggist's side, as well as the manufacturer's.

We have taken a perishable product out of a football state of return and have had in this the support of intelligent, wide-visioned, understanding retailers.

And let me say also, that not one of our members will ever be found guilty of not taking full responsibility on the return of any candy, where the responsibility is his.

Time will not permit my covering what I believe are other constructive moves. I do want, however, to cover one other policy that we have worked out, one that a large number of druggists have said is a very important policy from their view.

It was apparent to us last Spring that many of our members, through the solicitation of industrial orders at holiday seasons, bought by the industrial to be resold to employes at wholesale prices, were competing unfairly with retailers. You can't expect the cooperation of the druggist and then do that kind of business.

We talked it over with our group and they agreed and were anxious to correct it. The result has been the policy which I will now read.

Here are the names of the members who have taken this position:

Lovell & Covel Co.
F. H. Roberts Co.
Nunnally Co.
Henry Maillard, Inc.
Bunte Bros.
Stephen F. Whitman & Son, Inc.
The Rochester Candy Works
Foss-Edmands Co.
W. F. Schrafft & Sons Corp.
United Drug Co.
Wayne Candies, Inc.
American Candy Co.
Daggett Chocolate Co.
Durand Co.
Norris, Inc.
Pangburn Co.
Hollingsworth Candy Co.
The Gobelein Co., Inc.
King Candy Co.
H. D. Foss & Co., Inc.
Standard Candy Co.

Here is the policy:

"In fairness and right to retailers—in the matter of bulk holiday orders placed by industrials to be resold to employes at wholesale or other prices—

"We (the names of manufacturers I have just read) pledge ourselves not to accept direct, bulk orders placed by business houses or industrial plants where the merchandise is purchased for the purpose of being resold at wholesale or other prices to employes or others."

I say to you that this policy will cost some of our members a considerable volume of business—but the policy is right, honest, fair, and I think evidences one of the most honorable moves ever made by any group of manufacturers in any industry in the interests of the retailer.

I can assure you that we know the right course—our heads are clear. We are trying to be helpful to you because our group and you are equally concerned with this matter of positioning quality candy with its public in a way to insure a reasonable return.

And in Conclusion

I would like to sum up this way, and I am through.

This policy I have just covered, with the names of these manufacturers is to appear, I understand, in many of the trade drug papers, including your own official paper very shortly.

I will not beat around the bush, be evasive, try to whisper what I am about to say. I say this—my talk goes into the records of this meeting and I take it, will be later published with the official minutes of this convention.

We haven't in our group all the manufacturers of high-grade package candy, nor are all essential. We are a group that has come together to try to do a constructive job—as we best serve you and your public, we best serve ourselves.

If it looks to you as though our aim were clear, honest, honorable—then certain druggists in certain communities will feel that their business on package candy is safer, that their comeback is a little more certain, with the merchandise of the members of this group.

If later we find our course has not been right—if we find this large Institute expenditure is over the dam—if we are wrong—we will have paid the cost—the buttons will be off of *our shirts*.

If we are right—if we are honest (and we are)—if we are going to get somewhere—then tomorrow when a salesman of one of our group calls on you, you will naturally give him every consideration. Minds meet when a common course and common benefits become apparent.

One more word—advertising—one of our members has been very anxious to get the group into a collective advertising plan, but we are rushing into nothing. Advertising can have its place with this group.

We have in the making here a better position for a group of high-grade package goods manufacturers and for those druggists who, with them, are consumer conscious and who propose to make candy return them a profit.

When you get back to your store, don't let your mind become confused with the thought that $2.00, $1.50, $1.25 pound candy is over the dam and is to be superseded by 60c and 49c and so on, price levels.

Do not let your mind get disturbed on the "ifs" and "buts" and negatives that are so apparent in this present disturbed and unsettled business situation.

Things are looking better all along the line in all industries—more confidence—more optimism. Dollars are coming out and going to work again.

There are golden opportunities ahead. You can't sit on the side lines and hope for them. They have got to be dug out—sharper tools—finer quality—a stronger position with the public.

Candy is a basic product. Whether the price levels today are 80c—$1.00—$1.25 or where—is only figurative. What you are concerned about is get.ing, within your community, your part of the fine grade package candy business.

In closing, may I say—if, when you go back to your respective businesses and communities, there is any way that this Institute and its staff can be of help to you—you individually, or your local association, this national association—I am honest and sincere in saying that I am at your service 1,000 per cent and any help that we can extend to you in no way reflects any obligation on your part.

If, at your next year's convention you are kind enough to ask me to again appear on this program, I will report to you our work over the year and I believe that I will report material progress.

Well can this product candy be taken very, very seriously and well can we both look at each other with the full knowledge that we must be on the same side of the street, heading the same way, as close as we can keep our heads together.

Speaking for the Institute—we need your collaboration—I believe it is reasonable to say that you need ours.

Thank you.

Hutchinson Is Representing Economy Equipment in New England

R. G. HUTCHINSON, 3rd, whose series of articles on Air Conditioning and Refrigeration are familiar to the readers of The MANUFACTURING CONFECTIONER, has just become associated with the Economy Equipment Company, Inc., of Chicago, and is now acting as their agent in the New England territory. With this connection, Mr. Hutchinson is now prepared to offer a very complete line of air conditioning equipment and cooling conveyors to the candy trade as well as his services in a consulting capacity.

The air conditioners now handled by Mr. Hutchinson are among the most scientific and practical for all-around confectionery work. Their designers have had many years of experience in candy and air conditioning fields and have, therefore, been able to incorporate features of construction which are particularly valuable in candy manufacture. In addition to the conventional spray type conditioner, there is a baffle type machine which employs no spray nozzles. This conditioner holds a place of its own for use in any department where starch, chocolate, cocoa powder or flour are present in large quantities in the air. None of the difficulties from clogging often experienced with the spray type of machine are experienced with the baffle type conditioner.

The cooling conveyor he is handling is one of the most advanced machines in the cooling field. It includes features of construction and operation which are found in no other conveyor and its greatest merits lie, perhaps, in its ability to produce a beautiful finish at a high rate of production, in its flexibility in handling different types of goods and in its tunnel construction which is so designed as to eliminate unsanitary conditions and to facilitate periodical cleaning of the entire interior.

Candy Executives Resume Meetings

RESUMING once more their regular monthly meetings the Candy Executives' Club of New York held its first gathering of the Fall season at the Hotel St. George in Brooklyn on Monday evening, September 26th. A dinner preceded a short business meeting which was later followed by entertainment supplied by the Entertainment Committee.

Strenuous efforts will be made by the Membership Committee and the members of the organization this Fall to recruit new members among those in the trade actually engaged in the manufacture of candy. The membership in this class actually determines the number of members that can be accepted from the allied trades, the by-laws of the Club permitting two from the latter group for each candy-maker member.

Efforts are being made to hold a golf tournament early this Fall. If a sufficient number of the members indicate their willingness to participate, the tournament will be held. Jack Schneider of Cushman's, Inc., is in charge of the tourney.

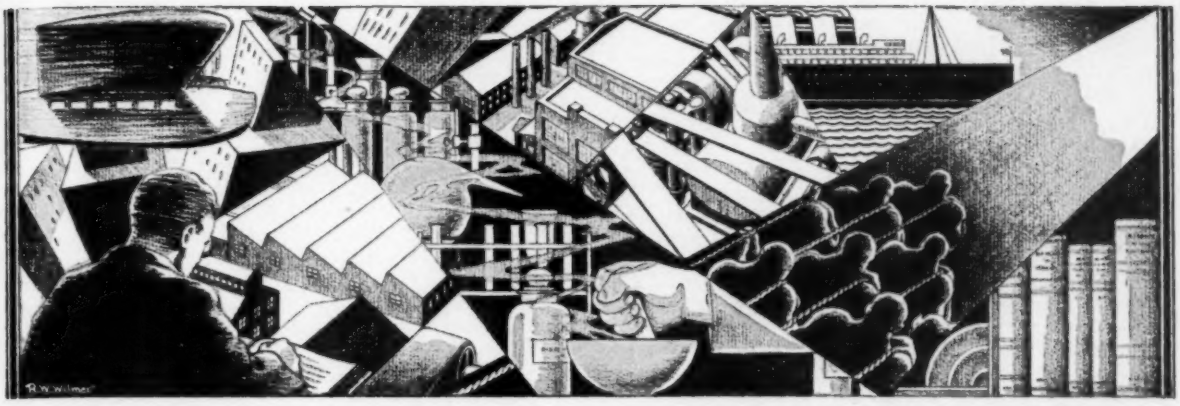
Dr. Robert Whymper, who needs no introduction to the readers of The MANUFACTURING CONFECTIONER, was announced as the speaker who will address the next meeting of the organization. This meeting is scheduled for October 24th. Dr. Whymper is going to talk on the subject, "The Flavor and Aroma of Cocoa."

V. O. Hermann Corporation Expanding Its Activities

ALIVE to the possibilities the future holds for the distributors and manufacturers of modern equipment who are prepared to serve and actively promote the interests of their customers, V. O. Hermann, President of the V. O. Hermann Corporation, 15 Park Row, New York City, has just announced the enlargement of his organization's personnel and the addition of new items to its line of confectioners' machinery and equipment. Claude J. Covert, who has been sales representative of the Vacuum Candy Machinery Company for some years and is well known throughout the trade, has recently become affiliated with Mr. Hermann as Vice-President of the Corporation. The Simplex Vacuum Cooker will be distributed in the United States and Canada by the V. O. Hermann Corporation as the exclusive selling agents.

The Hermann organization has also taken over the agency for the Herman Walter Chocolate Moulds. This concern is one of the oldest manufacturers of chocolate moulds in Germany. Arthur Perret, junior member of the Walter firm and A. E. Van Emden, former sales agent in this country for the Walter organization will be associated with Mr. Hermann.

In addition to Simplex Vacuum Cookers and the Walter line of moulds, this company is now distributing the Sizomatic Machine and the Rost line of automatic batch spinners, sucker machines, plastic and tablet machines, and automatic twisting and cutting machines. Branch offices have been established in Chicago and Toronto. J. M. Hutchison of 2732 High St., Chicago, is in charge of the former while Ernest B. Fletcher, 41 Ossington Avenue, Toronto, Canada, has taken charge of the firm's Canadian office.



Monthly Digest of
CURRENT TECHNICAL LITERATURE

Vitaminized Peanut Butter

The Peanut Journal and Nut World, vol. 11, *No.* 8, *p.* 23.

THE Williamson Candy Co. is placing on the market a vitaminized peanut butter treated by the Pacini process for producing vitamin D. The package is identified by a bright colored strip above the label stating that the product contains 250 units of vitamin D per pound ("Oh Henry" and "High Boy" grades). A biological assay of the peanut butter produced will be made monthly.

Vitamin D is not always present in sufficient amount in the diet and administration of this vitamin in the form of cod liver oil, although quite effective, is neither palatable nor inexpensive. Peanut butter is probably one of the most suitable foodstuffs for the carrying of vitamin D, which can be activated therein by ultraviolet radiation and specific treatment.

It is anticipated that vitaminized peanut butter will prove to be a very agreeable means of administering vitamin D to children and it is planned to take advantage of the publicity which has been given to the subject of vitamins during the past three or four years in women's magazines with a total reader circulation of some 25 millions. Vitamin D has an important function in formation of bone and tooth tissue in growing children. It eliminates rickets and many of the unsightly deformities resulting from soft bone. Vitaminized peanut butter can of course also be used in candy in the customary manner.

Cacao Infestation

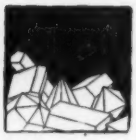
Report of Joint Committee. Office International des Fabricants de Chocolat et de Cacao, vol. 2, *p.* 319.

A JOINT committee of the Manufacturing Confectioners' Alliance and the Cocoa Association of London has been investigating the problem of infestation of cacao by the cocoa moth. The committee decided to put aside the question of fumigation which is a system based upon cure after damage instead of prevention at the source. However effective, fumigation does not remove the subsequent risk of re-infestation in storage. Apart from expense, fumigation is open to other objections, e. g., possible effect on flavor of the cacao.

Much importance is attached to the conditions under which the cacao is stored on arrival, as experience has shown that in a well constructed warehouse kept perfectly clean and with ample ventilation the risk of trouble from the cocoa moth is comparatively small. The following recommendations were made: *Cleanliness*—(a) floors to be kept clean and all broken beans and debris removed from corners, etc.; (b) walls to be whitewashed once a year; (c) ceilings to be vigorously brushed with wire brushes and then whitewashed once a year; (d) the tops of bags to be brushed with wire brushes at least once a year. *Ventilation*—There is to be plenty of cool *moving* air round the piles during the day time, both in summer and winter. *Lighting*—The warehouse to be illuminated at least sufficiently well to see if it is clean; diffused daylight being the best illuminant. *Stacking Arrangements*—(a) the stacks not to be too large and the floor area of individual stacks not to exceed 300 sq. ft. (bags should never touch the roof or walls); (b) consideration to be given to the suitability of other goods stored alongside cacao, e. g., sugar is objectionable, whereas coffee is not. *Segregation*—Whenever it is possible to make such arrangements, stock arriving in the winter months, say, October-January, should not be

mixed with cacao which has been in storage during the previous summer, but should be placed on a separate floor.

Should "Nonpareils" Contain Starch?



Deutsche Nahrungsmittel - Rundschau, No. 1-4, 1932; *Office International des Fabricants de Chocolat et de Cacao, vol.* 2, *p.* 299.

IT is claimed that the "nonpareils" used to decorate cholocate discs and other chocolate pieces were formerly made entirely from sugar and that the use of starch in preparing them is an adulteration and should be prohibited. On the other hand, the Association of German Candy and Chocolate Manufacturers contends that the use of starch up to 30 per cent has long been customary and is not in the nature of a cheapening practice, but is an improvement, in that "nonpareils" containing starch present a better appearance and do not readily become impregnated with fat when sprinkled on chocolate pieces.

The Proof of the Pudding in Packaging

Modern Packaging, vol. 5, *p.* 52.

A SELECTION of packages, designated as the "All American Twelve," has been judged as the best and most outstanding of the year. The choice was determined in accordance with the highest point rating based on 27 features, each of which occupies a recognized place in a plan for the practical design of a package.

Johnston's "Tableau Chocolates" was the candy package selected for inclusion in the twelve. The most important and singular feature of this package is its lack of top. A number of semi-visible boxes have been marketed, but some sort of covering has always been provided and the dealer is prone to leave these intact, which defeats the purpose. The Tableau package is enclosed in a white container with removal box top bearing a round black trade mark seal. This container is tied with a white string. Naturally, the dealer will not attempt to display the package without first removing the container, but he retains this container for repacking the package when sold.

Without any initiative on the part of the dealer this package answers immediately, accurately and honestly the three questions which every candy buyer asks: Is it fresh? What is inside? How much is it? The proof of the pudding is that Johnston's increased their candy package sales 34 per cent as a result of this innovation—a package that sells itself by permitting its contents to be seen.

Presence of Vitamin A in Cacao and Chocolate Products

By H. Labbé, Heim de Balsac and R. Lerat. Office International des Fabricants de Chocolat et de Cacao, vol. 2, *p.* 354.

COCOA butter obtained by pressing and cocoa butter obtained from cocoa shells by solvent extraction were found to contain vitamin A, but only in relatively small proportion. The active substances in cacao are very resistant to the action of heat and certain chemical reagents.

Effect of Light on Flavors

By C. S. Purcell. The Spice Mill, vol. 54, *p.* 910.

INVESTIGATION of this subject showed that many, if not most, of the essential oils used as flavors are liable to deteriorate on exposure to light, owing to decomposition of some of their components. This deterioration is retarded when the essential oil is dissolved in alcohol.

Lemon extract shows a greater resisting power to light rays than orange extract. The true fruit essences and also the extracts prepared therefrom, both of low alcohol content, lose their brightness of color and also deteriorate in flavor value after standing in the light. Vanilla extract loses some of its delicacy of flavor when exposed to the light.

The general belief that flavors and essential oils deteriorate under the influence of light, heat and oxygen and should, therefore be stored in cool, dark places and, preferably, in dark colored, well filled and tightly stoppered bottles, is well founded. The flavor of an extract may also be ruined by use of an inferior grade of alcohol. In the so-called "sunlight test" of quality the sample of alcohol is left exposed to sunlight for 30 and 60 day periods, at the end of which time foreign odors will develop in the poorer grades.

Ideas

By Martin Ullman. Modern Packaging, vol. 5, *p.* 34.

"IF I were a manufacturer of packaged goods, I'd beg, borrow or steal newspaper make-up. Every package is a six-sided newspaper. Note in tonight's newspaper how headlines are made up of the fewest words, yet what a world of information is conveyed in condensed form. The front of the package is its front page. This important space should tell more than just a bald statement of product name . . . it should picture all, so that at first glance men and women are enabled to gauge the desirability of the article and to form their buying preference. People read news . . . every bit of it. Like newspapers which yield up to everybody every last iota of information, packages should use all sides to state clearly informative news about the product they contain. Instead of repeating the name of your product on each side (as the majority of packages do today) picturize points of superiority which make vital product news. Because advertisers like to pick their readers, they request special positions. Preferred position in a newspaper is next to reading matter. It commands a premium over other space. Every side of a package is a preferred position."

(*Continued on page* 52)

High Spots *of the* Twenty-first Annual Safety Congress

WASHINGTON, D. C., was the meeting ground last week for the 21st Annual Safety Congress sponsored by the National Safety Council. Most people, and certainly all industries, have felt the influence of this growing organization in one way or another during its twenty years' existence.

To those unfamiliar with its work, the National Safety Council is a voluntary, cooperative body, national in scope and composed of about 5,400 corporations, firms, community safety councils and public spirited citizens interested in preventing accidents on the streets, in the homes and throughout industry. It had its inception in 1912 and now reaches 10,000,000 or more citizens in its continuous safety effort.

The program this year was one planned to emphasize the continued need for constructive effort in this direction particularly at this time when such extreme and unusual conditions confront nearly all industries and most individuals.

President C. W. Berquist of the National Safety Council made a point of this condition in his opening address from which the following are excerpts:

Last year we felt that we had reached the bottom of the depression but the ensuing months revealed new depths. In our efforts to prevent physical injuries, we are not unmindful of the devastating social effects of *economic* injury and death. This problem is now occupying the greater part of the public's attention. It is no less destructive than actual physical injury, and, in fact, it has a serious bearing on the individual's susceptibility to accidents. Under-nourishment, lowered morale, worry and uncertainty about the future make the worker an increased accident risk, even when the demand for production is missing.

Costliness of Accidents

But there is another side of this question. Accidents are as costly as ever to the individual and to his employer. True, there may be fewer orders in the shop but the customer wants delivery promptly. An accident upsets planned production; it adds to costs. Likewise it adds to the distress of the individual and places an added burden on both industry and the community when resources are already taxed to relieve distress. And we must not forget that for many an accident victim prosperity never can return.

The experience of the last three years has taught us that although accidents increase with business activity they do not decrease proportionately with output. In fact, many new and disturbing factors complicate the work of accident prevention. Safety departments have, in many cases, been obliged to carry on with reduced staffs, and with smaller appropriations for safeguards and maintenance. Even more serious have been the mental obstacles. Men have been worried, perplexed, uncertain about their jobs. Perhaps their health has been impaired by neglect of medical and dental service which their reduced earnings could not afford. Men who return to work after periods of idleness are out of step and they are likely to be accident prone. The safety director's problems have been multiplied.

Enforcement Alone Not Effectual

We have found that enforcement alone will not bring safety. We have found, for example, that a shop rule requiring the use of goggles will not be obeyed unless the foremen and workers have been sufficiently impressed with the necessity and justice of this rule. Drastic rules will fail without proper backing. A feeling that accidents are a black eye to the shop and emphatic disapproval of the man who endangers the safety record are more effective than harsh rules half-heartedly enforced. The companies which have made outstanding records in accident reduction are those which have developed this attitude among the rank and file of the workers.

In the field of public safety we find the same principles. We have seen temporary enforcement drives which forced some of the reckless to moderate their driving until the excitement subsided. We have seen campaigns of a highly emotional nature which brought temporary results but no fundamental reformation. The average person is still nonchalant about reckless driving. Some consider a ticket for speeding a huge joke.

Yet we must not forget that the desire for speed is not in itself vicious. It is only when it upsets the judgment of the individual and becomes dangerous to his fellow citizens that it begins to assume criminal aspects. The majority of accidents are not caused by an easily recognizable criminal class that can be segregated and dealt with accordingly. If that were so, the problem would be much easier of solution. No, the majority of those who are responsible for accidents are just ordinary human beings. Moreover, the responsibility for any particular accident is seldom clean cut. There are usually many factors contributing to the result and the responsibility is seldom entirely on one side. And to add to other difficulties, there is still a more or less prevalent fatalistic belief that accidents are inevitable.

Is it any wonder, then, that our progress seems slow?

Council's Worthy Accomplishments

Vast sums have been contributed to research for the control of various diseases such as tuberculosis, heart disease and cancer. Yet accidents, although ranking high among the causes of death, have received comparatively little attention from the great benefactors of mankind. Their elimination demands the correlated efforts of the engineer, the physician and the psychologist but the necessary support has not been forth coming.

Yet in spite of limited resources the National Safety Council has many accomplishments to its credit. It has awakened American industry to a sense of its responsibility for the protection of its workers, and its influence is not confined to the membership of the Council. It has also helped arouse the press of the nation and many public spirited organizations to the seriousness of the accident problem. To day the National Safety Council has a world-wide reputation for disinterested service to humanity.

We have been encouraged by the continued support and expressions of confidence from our industries. Industrial leaders realize that accident prevention cannot be dropped in hard times and picked up when prosperity returns. Not only is the momentum of an effective organization lost but the workers cannot be expected to have confidence in a fair weather program.

Increasing Need for Organized Safety Work

None of us is qualified to predict when prosperity will return. Yet there have been many periods in the world's history when the outlook was even darker than it is today and the world recovered. Humanity has many unfilled wants which are awaiting the return of economic sanity and stability for fulfillment. There are a million or more automobiles that should have been junked long ago. Our homes and our factories need repairs and replacements. We need new clothes and we have postponed the purchase of many luxuries. Stocks on the merchant's shelves are low. All of these wants will have to be filled eventually and the nation's workshops will again become busy.

I am confident that organized safety work will be more necessary than ever during the next few years. We must not be caught unprepared when the demand for production is heard again. The men who return to work after long periods of involuntary idleness will be in the same position as new workers, perhaps even more susceptible to accident than the youth fresh from school or the farm. Will equipment be in condition to meet the demands placed upon it without endangering the workers? Will there be adequate supervision and training?

Our streets and highways will be busier than ever and crowded with vehicles capable of even greater speeds than most of those now operating. In every line of human activity there will be increased opportunities for the safety movement.

Common Sense Accident Prevention

GLENN L. GARDINER is assistant to the president of the Forstman Woolen Co. of Passaic, N. J. Mr. Gardiner spoke before the Food Section of the Annual Safety Congress and the foundation of his talk was the fact that most industrial accidents are caused by lack of common sense; and conversely the best preventive of industrial accidents is common sense.

He said in part:

"Circumstances sometimes lead us to believe," said Mr. Gardiner, "that common sense is, after all, one of the most uncommon of faculties. A study of the causes back of the majority of accidents proves rather conclusively that common sense is uncommon. But this is a condition which makes intensive accident prevention work a continuous necessity.

To prove his point Mr. Gardiner described a number of typical industrial accidents. He told about a tall lanky young fellow who several weeks ago was entertaining a group of his fellow workers in a hosiery mill in Chattanooga, Tenn., by showing them how high he could kick, a suspended lamp cord being the target for his toe. He slipped and fell on the floor breaking his arm.

"Another worker operating a wool carding machine in our own mills," said Mr. Gardiner, "recently lost his right forefinger while cleaning lint off the machine in front of the card roll while the machine was operating. When his injury had healed he came back on the job. The foreman told him that he probably had learned a lesson by the accident. Two days later, however, he lost the second finger off his right hand doing the very same thing.

"The time has long past," continued Mr. Gardiner, "when it is necessary to go to great length to justify accident prevention work. In the last two decades a great variety of methods have been employed to prevent accidents. Some of these methods have been very effective and have secured gratifying results. Other methods have made considerable noise, have been surrounded by lots of bally-hoo, but have not succeeded effectively in eliminating accidents. We know that accident prevention work pays its way in actual dollars and cents, in addition to all the humane reasons why we should endeavor to stop accidents.

"I do not believe that any organization ever became really successful in preventing accidents until the point was reached where every one in that organization came to feel a personal sense of responsibility for

accident prevention. It never was a one man job and it never can be.

Six Safety Suggestions

During his talk Mr. Gardiner outlined six suggestions for carrying on his "common sense safety program," as follows:

1. The management must be sold on safety. The accident record of almost any company can be connected up directly with the attitude of the management's chief executive. No plant or factory is much safer than the managing executive makes it.

2. Organize to maintain interest in safety. I think the day is passed when an industrial organization will respond effectively to the evangelistic type of rabble-rousing, spread-eagle methods formerly used by many safety engineers.

3. Don't dilly-dally with men who are indifferent and disinterested in safety. Every such man constitutes a constant hazard not only to himself but to his fellow workers. The last man for whom we should feel sympathy is the man who has no regard for the safety of others.

4. Don't lock the barn door after the horse is stolen. Frequently, obvious hazardous conditions are only remedied after a serious accident has occurred. Do not assume that a worker knows the danger points of his job. Take the time and trouble to point them out to him. Point out to him as many times as are necessary to sufficiently impress him.

5. Run out all hits. This is a fundamental principle in our great American baseball game. It should also be a fundamental principle in our great industrial safety game. Constant alertness and watchfulness for possible causes of accident are essential. I am not referring necessarily to mechanical hazards because the great bulk of accidents are caused by non-mechanical hazards.

6. Concentrate on your supervisory organization. The function of the safety engineer is not to get workers interested in the prevention of accidents nearly so much as it is to get supervisors interested in interesting their workers in accident prevention. I make the point in this manner because of the futility of any attempts on the part of one single man to carry the load of accident prevention in any organization.

Faulty Plant Illumination as a Factor of Accident Causation

THE question of faulty plant illumination was discussed by P. R. Holmes, illumination engineer of the General Electric Co. of Philadelphia. Mr. Holmes is an expert in his field and his talk which is given herewith in part will be of interest to confectioners inasmuch as his remarks are applicable to practically all types of industrial plants.

"Civilization brought mankind indoors," said Mr. Holmes. "This change from an outdoor life to a predominately indoor one is perhaps the most outstanding change which has come to the human race. The human eye, which for ages developed for the most part for distant vision under the quantity, quality and distribution of natural daylight, has been called upon in a relatively few years to adapt itself to the enormously more severe demands of our present life.

"Impairment of vision is sure to be brought about unless the fundamentals of good illumination are observed.

"Recent years have shown considerable progress in the art of lighting. Notable improvements have been made in artificial illuminants and auxiliary equipments. General acceptance, however, has been slow, particularly in the reflecting equipments, as evidenced by the fact that 75 per cent of industry today is challenged on the score of adequate and proper lighting. Of particular interest to this Council is a very recent report from the Department of Labor which states that accidents in United States industries attributable to faulty lighting, cost the service of 125,000 workers valued at $150,000,000 annually. Certainly, this alone should be conclusive enough proof that there is still much to be accomplished.

Proper Use of Natural Light

"In attempting to analyze the causes for the majority of plant accidents resulting from faulty illumination, responsibility is generally placed on either inadequate or improper lighting. Inadequate light needs little explanation. While we are liable to find it in any part of the shop, the most common locations are in aisles, passageways and non-manufacturing areas. One seldom stumbles over objects that can be readily seen. Under good illumination, our eyes function and transmit the message to our minds so quickly that we avoid obstacles almost automatically. Under inferior lighting the difficulty of avoiding obstacles becomes great. In any plant a careful inspection periodically will reveal the hazards existing.

"Improper lighting covers a much broader field. When considering faulty illumination it is a very common habit to think only of the artificial lighting system. A recent survey conducted for one of our large companies indicated that in their case daytime conditions were far more troublesome than night. On account of the arrangement of work, many employees were forced to face windows through which considerable sky area was visible. The contrast created between this bright sky area and the lower brightness of the work and interior surroundings was such as not only to cause eye fatigue attributable to the glare, but if continued would be certain to cause serious impairment of vision to the workers. This condition, which illustrates our definition of glare, namely light out of place, is not uncommon in many of our working areas today and it is to be hoped will receive much greater attention in the future.

"Excellent data are available pertaining to vision. Light has received wholly incommensurate attention. The objective, therefore, of the lighting industry should be to aid human beings to see more easily and clearly, to conserve their eyesight, to avoid defective vision, to increase their usefulness and efficiency and their pleasure in living."

The Safe Use and Maintenance of Refrigerating Appratus

USING and maintaining refrigerating equipment in a manner affording the utmost safety was the subject upon which F. W. Rabe, Assistant Chief Engineer of the Anheuser-Busch, Inc., of St. Louis, addressed the Annual Safety Congress. Mr. Rabe said in part:

"Rules for the safe use and maintenance of refrigerating apparatus have been carefully prepared by the American Society of Refrigerating Engineers. The safety code for mechanical refrigeration applying to the safe installation, operation and inspection of every refrigerating system employing a fluid which is expanded, vaporized, liquefied and compressed in its refrigerating cycle, intends to provide reasonable safety for life, health and property. In addition to this code, many municipalities have their own codes governing the installation, repair and alteration of refrigerating systems.

"Damage to equipment in carrying liquids or gaseous ammonia often results in the escape of this refrigerant into buildings or rooms where food products are in the process of manufacture or in storage. The escaping gas may be injurious to such food products and even endanger or impair the health of occupants in the building. Aside from this there is always a danger of an explosion which frequently results in considerable property damage and often fatalities.

"Experiments have shown that ammonia gas, mixed with air in certain proportions, when ignited, will propagate a flame and that no visible form of burning is evident until a mixture of 11 per cent to 13 per cent of ammonia in the air is reached. It was found that a small yellow flame was produced at 11 per cent ammonia in air which increased in size with increase of ammonia content until at the proportion of 13.25 per cent of ammonia the burning was complete. When the percentage of ammonia in the air was increased from 19.6 per cent to 25 per cent the mixture exploded violently upon ignition. There is no danger unless heat is applied at some part in the system to cause an explosion. A good precautionary measure against fire in case of a possible explosion is to insist on the elimination of all open or inflammable lights at those places where the refrigerating equipment is located. Mention might be made at this point that pure anhydrous ammonia will not burn or explode.

Other Precautions

"It would seem to be a wise rule for operators to avoid setting in motion a compressor that has been idle for some time without first purging the cylinders of foreign gases and air. It is highly recommended that the pistons of all compressors in use be removed annually for examination of the cylinder walls and packing rings. Where poppet valves are used they should also be removed once a year to be ground and reseated if necessary. Such precautionary measures for the safe operation of compressors are taken by many manufacturers.

"One seldom finds that much attention is paid to relief valves. This equipment is called upon to function only sporadically and it may be for this reason that so little attention is paid to it. However, it is recommended that all relief valves in a refrigerating plant be tested and reset if necessary, at least once every three years.

"I would emphasize the necessity of having all autogenous, electric and oxyacetylene welds or unfired pressure vessels thoroughly inspected. Such inspections are in many cases difficult to make and to our knowledge there are only a few companies in the United States equipped with the facilities to conduct a thorough inspection of this kind. Where there is any doubt it is good practice to resort to riveted construction as statistics seem to point to the fact that more ruptures have occurred in welded than in riveted vessels and the reason seems to have been that the welds in such cases were improperly made.

"All pressure vessels should be built according to the ASME Code for unfired pressure vessels and they should be thoroughly inspected before installation."

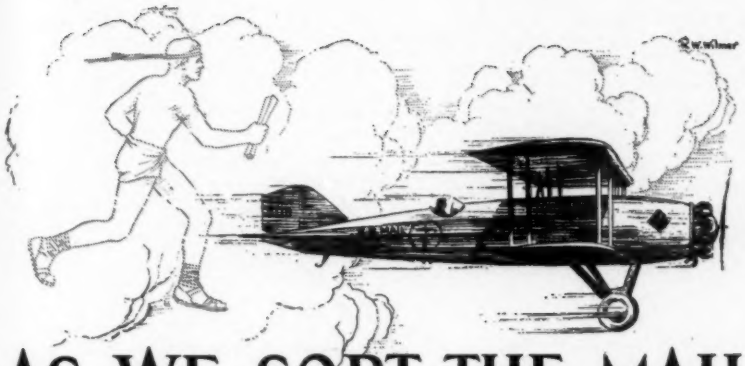
Chocolate Production by the Unit System

(*Continued from page 23*)

become available for the chocolate industry.

The principle upon which the continuous small-unit, self-contained chocolate process using liquid sugar works is simple in the extreme, and has the added advantage of utilizing existing chocolate machinery with only one essential addition—a continuous sugar syrup cooker with three synchronized pumps. As, however, there are some interesting points that should be more fully discussed for a clearer understanding of the process, it is proposed to reserve a more detailed description for the next article.

(To be continued.)



AS WE SORT THE MAIL

Questions addressed to this department will be answered by us from month to month. Readers are invited to make this a forum for informal discussion of subjects of general interest to the candy industry.—The Editor.

Appreciates Suggestions

WE wish to thank you for your frank criticism of our assorted gums. The package you got was not a regular package but a display package. This is packed in Climax boxes holding a pound. We are the manufacturers of the candy for the Chase's stores.

We thank you for this clinic service and hope that you will take others of our products for criticism.

M. M., San Francisco, California.

Glad to Help

I RECEIVED your letter in which you gave me a list of firms manufacturing hollowed moulded goods.

I want to take this opportunity of thanking you for your promptness in giving me this information, and sincerely hope that I may be of service to you at some time.

R. S. L., Sterling, Colorado.

Not in Agreement

THIS is in answer to your favor of the 2nd instant in which you quote a letter from the author of an article entitled "Do We Face a Sugar Shortage" which appeared in a recent issue of The MANUFACTURING CONFECTIONER. We are quite unable to agree with the conclusions reached therein.

Instead of a decrease in American (Hawaii, Puerto Rico, Philippines, Louisiana, and St. Croix) Cane production this year there was a very large increase, and there are indications of a further increase next year. While new capital may not enter our insular possessions under the present political and economic conditions, improved methods of production are causing larger crops on the land now under cultivation.

The 30% decrease in European Beet Crops is applicable only when comparing the 1931 crop with that harvested in 1930. This 1930 crop amounted to about 10,500,000 tons and created an enormous surplus. In 1931 the crop figured about 7,900,000 tons. The crop now about to be harvested is expected to turn out somewhat smaller than last year's as producers are anxious to clean up the surplus remaining from 1930.

The United Kingdom which is the largest buyer in the open competitive market is assured of an ample supply of sugar from Java and Cuba. Because of an increase in the Natal and Mauritius crops and also in its own beet crop, it will probably need less from Cuba and Java next year than it has required this year.

Regarding the 1930 Cuban crop of 2,600,000 tons it is to be noted that 700,000 tons of this amount were in excess of this year's market requirements, which fact was recognized by Cuba when it was officially decreed these 700,000 tons should be segregated until January 1st, 1933. Further, President Machado is expected to issue a decree shortly advancing the release date of these sugars to July 1st, 1933, as it is widely acknowledged that there is no market at a reasonable price for these 700,000 tons before that time.

The 1933 Java crop is expected to turn out about 1,350,000 tons as compared with 2,450,000 tons harvested this year. However, Java has on hand right now stocks of about 2.000,000 tons, and is only finding an outlet for these sugars at the rate of 1,600,000 to 1,750,000 tons annually. Even with next year's crop reduced to 1,350,000 tons, it is likely to take a long time to work off that surplus.

As regards domestic beets it is our opinion that there will be a considerable increase in production next year if present prices are maintained and the tariff is not disturbed.

So far as this year is concerned, our information as of Sept. 1st indicates a carry over in Cuba and the United States on December 31, 1932, of around 300,000 tons in addition to segregated stocks. This is not an excessive carry over, and should forecast a steady market for the balance of the year. There is, however, no indication of any sensational advance in prices.

As an additional check on the domestic market there is the possibility of large scale importations of full duty foreign refined sugars.

With sufficient supplies available for foreign markets generally no very great advance in world sugar values is likely to occur. If our own market should climb too high above world parity, say more than 30 points, it would certainly encourage an influx of foreign refined.

We trust the above will give you our reasons for our letter of August 26th.

W. W. H., New York, N. Y.

Soybean May Be Most Versatile U. S. Crop

THE soybean promises to become America's most versatile crop—highly valuable both industrially and agriculturally. The United States Department of Agriculture has recently completed a collection of nearly 400 soybean products from the Orient as well as America.

The collection shows that a wide variety of products are made from the soybean in America. It is divided into four groups of flour, bean, meal, and oil products. In the flour group are bread, cakes, macaroni, vermicelli, noodles, spaghetti, infant foods, diabetic foods, and beverages, such as malted milks. From the bean proper are soy sauce, sprouts, bean milk in fresh, powdered, and canned forms, bean cheese, flour, soybean butter, and meat substitutes. The meal provides animal food such as poultry, hog, cattle, and dog feed, glue, fertilizers, and flour. The oil has proved a fertile field for development and from it are made soaps, ink oils, salad oil, shortening, core oil used in foundries, rubber substitutes, disinfectants, paints, varnish, chocolate candy, and lecithin, a phosphatic tonic compound.

Soybean products in the Orient differ somewhat from those in America. For instance, from roasted beans the orientals make candies, cakes, confections, and beverages similar to coffee. They make a bean paste which is fermented and used in soups, in preserving foods, and in making soy sauce. Orientals also use soybeans widely as a green vegetable, much as Americans use lima beans. Besides the oil uses adopted in America, the orientals use it to make candles and waterproof goods. Another significant product is a fuel oil made by the Japanese from soybean oil. Although this is not commercially profitable now, it indicates a possible future development.

Dept. of Commerce Report.

An Essential and Growing Industry

(*Continued from page* 33)

12 cents. The conclusions to be drawn from this experience should be obvious.

Commenting in 1924 on the fact that sugar prices were at pre-war levels, President Calvin Coolidge, in refusing to lower existing sugar tariffs, declared:

"I do not believe that we can maintain such prices if we destroy our domestic industry."

Mr. Coolidge on the same occasion offered further justification of the beet sugar industry.

"It is important," he said, "that as a Nation we should be independent as far as we may of overseas imports of food. . . . The interest of the consumer will in the long run be served only by an ample supply of the product."

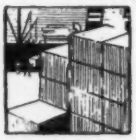
Twenty-eight other important nations besides the United States are of a similar opinion in so far as sugar is concerned. Each has a higher tariff on sugar imports than that prevailing here. The havoc resulting from the destruction of the sugar beet fields of Europe during the World War has convinced governments of nations where such cultivation is possible that it is true economy for the consumer to maintain at home an industry capable of supplying a portion of national demands.

In the final analysis it is apparent that the beet sugar industry is not to be discounted in so far as it affects the domestic consumer. Besides contributing to national well-being in terms of profitable farmlands, employment opportunities and railroad revenue, it has a distinct bearing on the maintenance of fair and equitable prices. Without question, it is an important industry—one which most assuredly merits the good-will of the confectionery trades. As long as it can be maintained and protected against unreasonable foreign competition, there is little danger of sugar shortages with accompanying high prices.

Digest of Technical Literature

(*Continued from page* 46.)

New Nickel Alloy for Use in Food Equipment



Food Industries, vol. 4, *p.* 225.

HIGH resistance to tarnish and corrosion, together with favorable mechanical properties and malleability, is claimed for a new nickel-chromium alloy that has been recently developed. It contains 12 to 14% chromium and is expected to find general application in the food field. This alloy is being used for steam-jacketed kettles and for equipment of various other types.

This chrome-nickel alloy has greater strength han nickel or monel metal and has equivalent ductility. It can be handled at least as readily as nickel or Monel metal in lock seaming, deep drawing, and spinning and can be soft soldered, silver soldered, brazed and welded by both oxy-acetylene and arc-welding methods. Development of a new welding rod makes the welding of this alloy simple and rapid and gives a seam of high strength and corrosion resistance.

"Electric Eye" Applied to Wrapping Machines

Modern Packaging, vol. 5, *p.* 66.

THE feeding of transparent cellulose in rolls to automatic wrapping machines is now a comparatively simple matter. Difficulty may be experienced, however, with printed transparent cellulose wrappers. No matter how accurately the printing is spaced on the rolls, nor how finely the unwinding mechanism is adjusted, changes in atmospheric conditions will cause slight variations which cannot be controlled. If, for instance, the unwinding rolls cause a variation of only one one-hundredth of an inch in the length of the wrapper to be cut off, then, on a machine running at one hundred packages per minute, the design would be one inch off center after a one minute run.

This problem has been solved by the use of the photo-electric cell or "electric eye." By mechanically "seeing" a spot printed on the paper at regular intervals it can be made to control the length of the sheet that is unwound at each revolution of the machine, thus keeping the cut-off of the paper accurately within one thirty-second of an inch and insuring that the design is located centrally on the package.

Either a spot printed on the paper or else part of the design itself will serve the purpose. This mark passes over the "electric eye" which records its impression immediately and, according to whether it sees the spot too soon or too late, makes the necessary compensation in the unwinding mechanism. No cost is added to the paper; in fact, printed transparent cellulose in rolls is at least 10 per cent cheaper than in sheets. The electrical apparatus required is far less complicated than the ordinary radio set. A number of installations have been made in various industries, including several candy factories.

Joe Jobber Says

(*Continued from page* 39)

only those who protect them, and that they have no obligation to those who do not. Others hold that if the jobbers want the sound manufacturers to quit selling every man who calls himself a jobber then the responsible jobbers should stop patronizing the so-called gyp manufacturers.

There is something to be said for these views, but in the main they are short-sighted and beg the question. You can't get around it, every manufacturer who supports the irresponsible, unqualified distributor indirectly, if not directly, hurts himself. He helps to undermine the market stability and he upsets the established jobber who is the backbone of the manufacturer's sales outlet under normal, healthy conditions.

Eventually the manufacturers as a group will have to take a stand on jobber qualifications — e v e n though they may be broad and general. At least it will be a start toward cleaning up the trade. We hope they will not delay much longer. What do you say?

JELLY GOODS - GUM GOODS
MAKE BOTH
THE EXCHANGE WAY
PACK THEM IN BULK

THERE IS PROFIT IN QUALITY

USE EXCHANGE CITRUS PECTIN TO IMPROVE THE QUALITY OF YOUR GUM GOODS AND TO MAKE SUPERIOR JELLY PIECES

INCREASE YOUR BUSINESS

MAKE NEW PROFITS

THE COUPON BELOW WILL BRING YOU THE FACTS

Exchange BRAND

CITRUS PECTIN
for
CONFECTIONERS

CALIFORNIA FRUIT GROWERS EXCHANGE,
PRODUCTS DEPARTMENT,
ONTARIO, CALIFORNIA

Send, free of charge, samples of candies made with EXCHANGE CITRUS PECTIN; also information and formulas for the use of this new basic material now available to confectioners.

Name of Concern.....

Street Address .....

City..... State.....

Mark Sample for the Attention of

.....

Some Headliners

In Other Publications

A Digest of Articles on Advertising, Distribution, Selling and Other Subjects of Interest to Confectionery Manufacturers.

Apply the Principle of Expectancy in Collections

THE secret of getting your money when it is due is the principle of expectancy. Every debtor has some money for bill paying purposes. And which bills does he pay? He invariably gives preference to those who clearly indicate by word and action that they expect to be paid.

Creditors who apply the principle of Expectancy begin by laying the foundation at the time the sale is consummated.

The first step is to firmly impress upon the debtor your exact terms of sale. If you have reason to believe that the debtor may be careless in meeting his obligations, you can say to him something like this: "Our statements are rendered on the first of each month, Mr. Blank, and we budget our expenditures on our receipts. Now, in order that we may know just what to count on, will you tell me frankly when we may expect your check?"

After a brief pause, it may be well to suggest a definite time, as for example, "Shall we say by the tenth?" If this date is agreed upon, make a note of it, in the presence of the customer, so that he may fully realize that you mean business. You can avoid any possibility of offense by adding a few words, such as, "You understand, of course, that there is nothing personal in this, Mr. Blank. We are simply conforming to our established policy."

You have put the debtor on record; he has made a definite promise. You are more apt to make a satisfactory collection than would be the case under ordinary circumstances.—*Maxwell Droke, in Hardware Age, quoted in Toy World.*

Are Credits and Collections Part of the Salesman's Job?

THE arguments of the opposition take these various forms: 1. Selling is selling; credits and collections are different and won't mix. 2. The salesman is a constitutional optimist—the credit man is a born pessimist—consequently the salesman is a poor judge of what constitutes a good credit risk and his optimism makes him a poor collection agent. 3. Because of friendly relationships with customers he feels apologetic, and awkward when asked to make collections.

4. Salesmen ought to devote all their time to selling. 5. Friendly relationship between customer and salesman is not possible when salesman is even partially responsible for credit matters.

6. When a salesman is called upon to do collecting, it puts him in an unfavorable light before his customers and causes him to lose prestige. 7. There are less expensive ways of accomplishing credit and collection results.

The "pros" argue along this line: 1. Salesman must realize that a sale is not complete until the money is in the house and the best way to get that point over is to make him a part of the credit and collection machinery. 2. The man who is best acquainted with the customer is the man to perform credit and collection duties. 3. The higher the credit standing of an account, the better the sales possibilities.

4. The salesman is expected to help the dealer with his multifold problems and that inevitably takes him into credit matters. 5. Many a good account is likely ruined if collection is left to a less expensive employe whose time does not cost the company as much as the cost of traveling a salesman.

6. Salesmen can be trained to handle collections efficiently. 7. Salesmen should assume more responsibility for matters affecting credits and collections and avoid ill-will of dealer whose credit is limited, yet whose order has been turned down by the house, etc. 8. In well-managed organizations time required for collections is really very small. 9. Credit and collection work is almost as important, if not equally as important as willing work.

In between the two camps there are a large number of manufacturers who have worked out some sort of compromise. Some of these manufacturers expect their salesmen to help with credit work only on new accounts. Others ask their salesmen for credit information only when these data seem to be unobtainable in any other way. Then there are some manufacturers who enlist their salesmen in actual collection work only when all other methods have failed. These various gradations of thought and practice are brought out in expressions of opinion and policy which *Printers' Ink* has obtained from a representative group of sales executives—*E. B. Weiss, Printers' Ink.*

SUCCESS is doing what you want to do and making a living at it.—Tindeco Magazine.

The Price-Cutter

THE price-cutter is a fool. He not only pulls down the standing of his goods; he not only pulls down his competitors, he pulls down himself and his whole trade. He scuttles the ship in which he himself is afloat.

Nothing is so easy as to cut prices, and nothing is so hard as to get them back when once they have been pulled down.

Any child can throw a glass of water on the floor, but all the wisest scientists in the world can't pick that water up.

Who gets the benefit of price-cutting? Nobody.

The man who sells makes no net profit; and the man who buys soon finds himself getting an inferior article.

No manufacturer can permanently keep up the standard of his goods if the price is persistently cut. Pretty soon he is compelled to use cheaper materials, and to cut down the wages of his workers.

The man who cuts prices puts up the sign: "This way to the junk heap!"

He admits his own failure as a salesman. He admits he has been defeated according to the Marquis of Queensbury rules of business. He admits he cannot wind by fighting fair.

He brands himself as a hitter-below-the belt.

If the business world were dominated by price-cutters there would be no business at all.

Price-cutting, in fact, is not a business any more than smallpox is health.

Whenever you see this sign on a price-cutter's store—"Going Out of Business"—you may be sure it is a lie. How can he go out of business when he never was in?—*Keystone Butler.*

AN expert is a man who either talks eloquently or writes a good report.—Tindeco Magazine.

What Are You Getting For Your Rent?

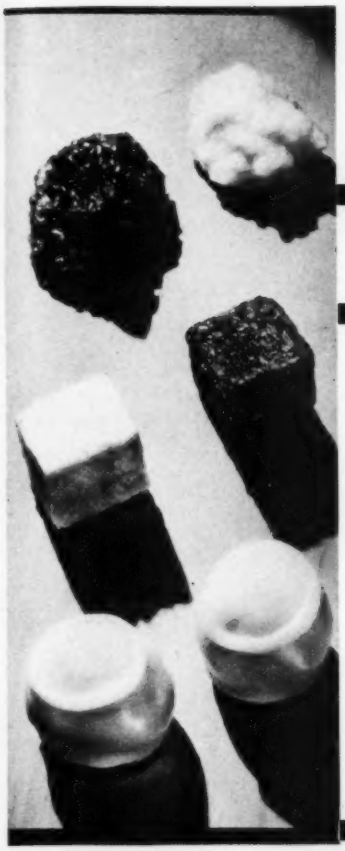
—Here are a few points to be considered when renting a grocery store. The front is one of the most important elements. A two-window store is preferred to a one-window store, other things being equal. Each window acts as a magnet to draw customers into the central door. Beware of iron gratings over ventilating shafts, for women avoid these with their narrow high heels. Do do not have a step-up to your entrance.

As to the size inside it is well to draw a scale diagram to show exactly where counters and aisles will be. A store that is perfectly rectangular is preferred, and projections from the walls are to be avoided—as are pipes running across the ceiling. You will want a rear entrance. Make sure that your cellar will be dry in all seasons. Be sure it won't get too hot in the winter.

Pillars in center of the store create a dead spot and interfere with proper arrangement of counters and merchandise. A floor covering like linoleum or composition is desirable; wood is good, but it gets to look old and ragged; stone is cold and harsh. The ceiling and walls should be well painted with oil paint and if possible enameled over the paint to make a gloss that can be easily washed and kept clean.

A brick building is better than a frame structure. Always consider the buildings on each side. Also look out for an alley that has heavy traffic alongside of the store, as people will often be watching out for traffic instead of looking in your store windows. The matter of ventilation is also of great importance.

A merchant who is making any alterations should be careful that he has included the work in his original contract. Be sure that your contract with the contractor provides that no extras will be paid for unless they are authorized by you in writing.—*Jerry Wilson, The Post.*



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LEXIN LEXIN LEXIN

By using an amazingly small amount of LEXIN in coconut formulas, your most delicious coconut confections will retain their moisture and freshness actually MONTHS LONGER! That costly drying out which often occurs in several weeks is prevented—and that original tender, soft consistency which means everything to salability is prolonged. A little LEXIN can boost your coconut confection profits considerably.

NEW FORMULA for Coconut Paste Base, also SAMPLE and FREE BOOKLET "D", containing valuable confectionery and chocolate information, are yours for the asking. Don't pass up LEXIN benefits another day!

U. S. Patent Nos. 1575529, 1660541, 1781672

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Nulomoline is a protective ingredient—use it to retain the freshness in your candies *until they are consumed.*

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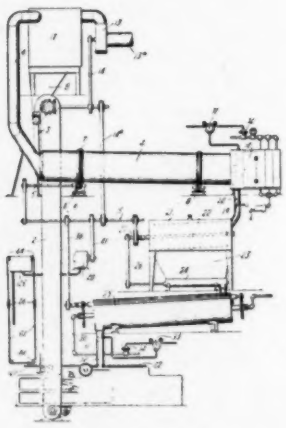
WHAT'S NEW?

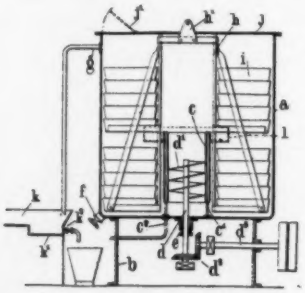
New Patents

1,872,284. Method of and Mechanism for Conditioning Starch. Harold W. Harrigan, Melrose, Mass., assignor to Hersey Manufacturing Company, Boston, Mass., a Corporation of Massachusetts. Filed Apr. 4, 1931. Serial No. 527,698. 19 Claims. (Cl. 107—3.)



1. In combination with a machine for molding starch, means for reconditioning starch from said machine for subsequent use, and means for starting said conditioning means only after a predetermined time of continuous operation of said machine.

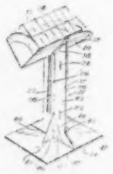
1,867,263. Crystallization of Gums, Fondants, Sweetmeats or the Like. Andrew Gordon Hulme, Stockport, England, assignor to Baker Perkins Company, Incorporated, Saginaw, Mich. Filed Aug. 20, 1928, Serial No. 300,882, and in Great Britain Nov. 7, 1927. 11 Claims. (Cl. 91—4.)



1. Plant for use in crystallization of the kind indicated comprising a vessel for containing the crystallization syrup, means associated with the vessel for heat treating the syrup, means adapted for causing the circulation or agitation of the syrup during the heating period means projecting through the bottom of the vessel for driving said circulating or agitating means, and a carrier for the goods adapted to be introduced into and removed from the top of the vessel.

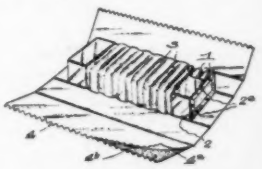
10. Plant for use in crystallization of the kind indicated, comprising a vessel for containing the crystallization syrup, a cylindrical heating element arranged about the axis of the vessel and affording an annular space for the accommodation of the goods, means arranged within the cylindrical element adapted for causing the circulation or agitation of the syrup during the heating period, and a strainer adapted to be interposed in the circulation path of the syrup and detachably to be hung upon the upper end of the heating element, and a carrier for the goods adapted to be introduced into and removed from the vessel.

1,866,117. Confection Display Device. Henry H. Logan, Chicago, Ill. Filed Mar. 28, 1931. Serial No. 525,929. 7 Claims. (Cl. 211—156.)



1. In a confection display device the combination of a base comprising oppositely extending flat portions of sheet material, a standard carried by said base, and comprising an upwardly extending part of sheet material at right angles to said base, said standard having a V-shaped end with edge portions extending at an angle to each other, a hod comprising a pair of sides of sheet material disposed at the same angle to each other as said V-shaped end, whereby said hod will substantionally fit the end of said standard, an additional portion of said material connecting the sides of said hod and closing one end thereof, and a handle connected to the lower surface of said sides, and extending downward into engagement with said standard, said hod being proportioned to dispose the major portion of the weight on the same side of said standard as said handle to urge said handle into engagement with the side of said standard, and to support the hod in stable position on said standard.

1,865,535. Confection Package. Robert E. Meany, Chicago, Ill., assignor to Wm. Wrigley Jr. Company, Chicago, Ill., a Corporation of Delaware. Filed Mar. 3, 1930. Serial No. 432,830. 7 Claims. (Cl. 206—46.)



1. A confection package comprising a plurality of lozenge-shaped confections surrounded by an inner wrapper, having its end margins folded over but not closing the ends of the partially wrapped package, and an outer wrapper of metal foil having a lining of paraffine impregnated paper surrounding the package lengthwise with its longitudinal edges overlapping and its projecting side margins folded against the ends of the package, said wrapper being sealed along said overlapping edges and folded end portions by the paraffine in said lining rendered adhesive by the application of heat.